S
350.86
P4r

STATE DOCUMENTS

STATE OF MONTANA

A Recommended

Six-Year State Construction Program

and a

Program of Public Works

for all

State Institutions

including

Water Conservation Projects

and

State Highways

Prepared by
MONTANA STATE PLANNING BOARD
Helena, Montana
March 15, 1941

Montana State Library
3 0864 1003 9838 0

STATE OF MONTANA

A RECOMMENDED

SIX-YEAR STATE CONSTRUCTION PROGRAM

and a

PUBLIC WORKS CONSTRUCTION PROGRAM

for all

STATE INSTITUTIONS

including

WATER CONSERVATION PROJECTS

and

STATE HIGHWAYS

o-o-o

Prepared by

MONTANA STATE PLANNING BOARD
Helena, Montana
March 15,1941

COPY NO. 279

STATE OF MONTANA

STATE PLANNING BOARD

Sam C. Ford, Governor

ROY E. AYERS, GOVERNOR
D. P. FABRICK, CHAIRMAN . CHOTEAU
~~ROCKWOOD BROWN, BILLINGS~~ C. H. Raymond, Hamilton
O. S. WARDEN, GREAT FALLS
E. B. DONOHUE, HELENA

HELENA, MONTANA

FRED E. BUCK, SECRETARY

March 15, 1941

The Honorable Sam C. Ford
Governor of Montana
Helena, Montana

Dear Governor:

We have the honor to submit herewith for your consideration a recommended construction program for all state institutions, including state water conservation projects, and the state highway program.

The Montana State Planning Board, assisted by the National Resources Planning Board, has undertaken to prepare a public works program for the state. The National Resources Planning Board is encouraging this work throughout the nation in order to have available meritorious projects for public employment when industrial activity for the national defense slackens. It is considered good policy for the state to be as well prepared as possible for this eventuality with projects of permanent usefulness and economic value.

Because there will not be a federal public works program in the immediate future, the report submitted herewith deals largely with needed construction at state institutions, and outlines a program that can be financed with state funds without an increase in the present forms and rates of taxation.

In addition there are also included herein three major groups of projects that are adaptable to a future public works program, namely;-

the deferred construction program for state institutions;

the state reclamation program of the state water conservation board, and

the state highway program.

Additional preparation and study are required for these three groups of projects in order to have them in readiness for the next federal public works program. Undoubtedly, such a program will also include the construction of municipal improvements and the further development of airport facilities. Insufficient study has been given to these last two items to warrant their inclusion in this report.

Respectfully submitted,

STATE PLANNING BOARD

By D. P. Fabrick

D. P. Fabrick, Chairman

THE MONTANA STATE PLANNING BOARD

Sam C. Ford, Governor

D. P. Fabrick, Chairman, Choteau — O. S. Warden, Great Falls

C. H. Raymond, Hamilton — E. B. Donohue, Helena

Fred E. Buck, Secretary

- - -

Technical Assistance: National Resources Planning Board, Portland, Oregon.

Geo. W. Howson, Public Works Engineer

Otto W. Croy, Finance Analyst

- - -

FOREWORD

o-o-o

In recent years our state and federal governments have spent large sums for construction work, which has served as a balance wheel to offset the lag in private and industrial activities. During that time improvement programs were often undertaken without due regard for long-range requirements and without the proper coordination of projects. This was brought about largely because of the lack of time to fully appraise the needs for betterments and additions to public property, and to study in advance the effects of increased facilities.

At the present time the nation is exerting every effort to expand the defense program to a peak of production, but when that point is once attained, there will in all probability be a decline in employment which must be absorbed by a public works program of internal improvements.

With these conditions in mind, and as an aid, the State Planning Board, in cooperation with the National Resources Planning Board, has prepared this proposed program of capital expenditures for all state institutions. The work involves a financial analysis of the State's income and expenditures, as well as a physical examination of the needs of each institution in this connection. Acknowledgement is hereby made of the splendid cooperation and assistance rendered by employees of the national planning board, who were loaned to the local planning board for this work.

There is presented herewith a proposed six-year construction program for state buildings, hospitals, institutions and colleges; a list of major projects prepared by the State Water Conservation Board, and a summary of resources and requirements of the State Highway Department.

Upon initiation of the program, blank forms were mailed to the heads of each state institution with a request that all of the needs of the respective institutions be listed in the order of necessity, with the estimated costs of each capital expenditure. These blanks were filled out and returned to the Board with written justifications for each proposed improvement. The original forms and letters of justification will be kept on file for future reference. Minor items of repair and betterments that could be taken care of through normal departmental appropriations are not included herein. The justifications submitted have been incorporated in this report. Acknowledgement is hereby made of the full cooperation of the heads of all state institutions and also all state departments.

The total cost of the recommended programs submitted by the departmental heads far exceeded the ability of the state to finance. The purpose of this report is not to stimulate demands for new construction, but rather to retard demands to the extent that only acute projects will have first consideration, while others will be placed for future consideration according to their urgency. In setting up the proposed program, revisions have of necessity been made from the entire proposals submitted, adjusting proposed expenditures to funds available from present tax levies. These revisions were made after frequent consultations with state fiscal officers and other qualified citizens.

The program is arranged in three bienniums, according to the minimum needs and within the state's ability to finance. The remainder of the program is placed in a deferred or "future" column. It is the intent that the program will be reviewed and revised at the end of each biennium, and

advanced two more years, which will perpetuate a six-year future program. On account of the constantly changing conditions, economic and otherwise, it is not proposed, nor is it possible, to fix a six-year program that shall be current more than two years in advance. This plan of programming capital expenditures in reality serves a dual purpose; first, it presents an orderly six-year plan of construction that can be financed from current state income without increasing the general tax rate or other forms of taxation, and secondly, it suggests a list of projects adaptable to a public works program if and when the federal government institutes such a program to absorb unemployment released from the present rearmament program. The second group includes the projects of the State Water Conservation Board, the Montana Highway Department, and the deferred projects listed by the institutions in the "future" column of the ensuing tabulations.

o-o-o-o-o-o-o-o-o-o-o

TABLE OF CONTENTS

Page

SECTION 1. FINANCIAL SUMMARIES 1

Financial Analysis 2-5
Table: Summary, Six Year Construction Program . . 6
Table: Financial Statistics, General Fund Revenue 7

Proposed Future Program. 8
Graph: General Fund. 9
Table: Financial Statistics - State Bonded Debt. 10
Graph: Bonded and Warrant Indebtedness 11
Table: Debt Service Requirements 12
Graph: Debt Service Progress 13
Graph: Taxable Valuation and Population. 14

SECTION 2. CAPITOL BUILDING AND GROUNDS 15

Capitol Building and Grounds 16-18
Table of Six Year Construction Program. 19

SECTION 3. CONSERVATION AND DEVELOPMENT. 20

Livestock Sanitary Board 21-22
Table of Six Year Construction Program. 23

Fish and Game Commission 24
Table of Six Year Construction Program. 25

State Board of Forestry 26
Table of Six Year Construction Program. 27

SECTION 4. EDUCATION OTHER THAN THE GREATER UNIVERSITY UNITS 28

Historical Society of Montana. 29
Table of Six Year Construction Program. 30

Montana School for Deaf and Blind. 31-32
Table of Six Year Construction Program. . . . 33

Page

SECTION 5: HOSPITALS AND INSTITUTIONS 34

Montana State Hospital 35-36
Table of Six-Year Construction Program 37-38

Tuberculosis Sanitarium 39-41
Table of Six-Year Construction Program 41-A

Orphans Home 42
Table of Six-Year Construction Program 43

Montana Soldiers Home 44
Table of Six-Year Construction Program 45

Montana State Training School 46
Table of Six-Year Construction Program 47

State Industrial School 48
Table of Six-Year Construction Program 49

Vocational School for Girls 50-52
Table of Six-Year Construction Program 53

Montana State Prison 54
Table of Six-Year Construction Program 55

SECTION 6: GREATER UNIVERSITY OF MONTANA 56

Greater University of Montana- Summary 57
Table of Six-Year Construction Program 58
Table of Financial Statistics 59

State University 60-63
Table of Six-Year Construction Program 64

Montana State College 65-67
Table of Six-Year Construction Program 68

Montana School of Mines 69-70
Table of Six-Year Construction Program 71

State Normal College 72-74
Table of Six-Year Construction Program 75

Eastern Montana State Normal 76
Table of Six-Year Construction Program 77

Northern Montana College 78-81
Table of Six-Year Construction Program 82

Page

SECTION 7: STATE HIGHWAY DEPARTMENT 83

Table of Six-Year Construction Program 84
Table: Revenues- Expenditures - Requirements 85

SECTION 8: STATE WATER CONSERVATION BOARD 86

Resume of State Water Conservation Program 87-89

Table- State Water Conservation Revenue Bonds 90
Summary of Water Conservation Projects, by counties . 91-98

* * * * *

SECTION I.

FINANCIAL SUMMARIES

Tabulations of financial statistics covering a historical period, July 1,1931 to June 30,1940 inclusive, are shown in summaries on pages 7,10,12. The summary on page 7 is related to general fund revenues, expenditures,and requirements. The sum total estimates for the six-year period of the program shown in this table were determined from a charted curve as contained in a graph on page 9. The expressed opinions of the State Accountant, officials of the State Board of Examiners and of the State Board of Equalization were used in charting the curve.

Comparison of the estimated general fund revenues and requirements covering the future six-year period indicates a probable surplus of approximately $660,000 for the full period, which might be available for major capital improvements and to cover the increased operating expense as a result of additions to existing property and facilities.

On page 7, the summary of general and special fund expenditures contains information as regards the sources of support for various state activities. In preparation of the tabulations of financial statistics, expenditures have been segregated under eight captions to denote in the general manner the purpose of the use of public funds. There is also contained on page 57, Section VI., a tabulation of statistics of the Greater University, showing expenditures for the various units, and the sources of income to the Greater University.

Pages 10,11,12,13 and 14, contain tables and graphs of the state debt structure, debt service requirements, and taxable value and population cov-

ering historical and future periods. Page 8, gives a summary of the proposed future, or public works program.

The tables of financial data have not been proved against official records of the state, but are deemed sufficiently in balance to serve the purpose for indicating trends of revenues from existing sources of income and demands likely to be made against these revenues for continuance of state activities.

PROPOSED SIX-YEAR CONSTRUCTION PROGRAM

The total cost of the proposed projects and items submitted by the various departments of the state, including new construction and land, is estimated at $8,604,000. The list embraces a total of 154 items, which as a whole might be classified as major improvements. Out of this list, 74 items have been placed within the six-year state program estimated to cost $2,000,800, and the remaining 80 items, estimated at $6,603,200, are scheduled as "future", or eligible for a program of public works. The methods proposed for financing the initial cost of the 74 items included within the six-year program is as follows:-

Appropriation, general fund - - - - - -	$335,400
State Bonds, voted Nov.5,1940 - - - - -	500,000
State Bonds,not voted or authorized - -	675,000
Special and Other Funds - - - - - - - -	490,400
Total - - - -	$2,000,800

A number of the proposed projects are justified on the basis of an

estimated saving in operating costs, while many other items, indicate substantial increases in maintenance and operation costs.

The estimated effect of the six-year program, including cost of construction and increase in operating and maintenance expense on the general fund and on the state debt structure, is indicated in summary of financial statistics, page 12, and in the table of outstanding state debt, page 10.

Section VI., pages 54 to 75, are devoted to the various units of the Greater University. In this section there are proposed six-year construction programs for units of the Greater University, together with supporting justifications and tables of financial data. The estimated initial cost of projects for university and state schools for higher education, as shown on page 56, is $776,040. The proposed methods for financing these items is as follows:-

Appropriations, general fund - - - - -	$124,040
State Bonds, vote necessary - - - - -	270,000
Other Funds, - - - - - - - - - - - - -	382,000
Total, - - - - - -	$776,040

The summary of the six-year construction program for buildings, hospitals and institutions, shown on page 6, indicates the estimated initial cost of projects, together with the probable increase in operating expense, due to additional and improved facilities. These estimates are scheduled in the three future biennium periods.

In order to show the effect of the program upon the general fund of the state, the amounts for construction and increased operating costs have been superimposed upon the estimated requirements, for existing functions over the six-year period.

Likewise, the amounts for construction and estimated increase in operating costs, as shown in summary of six-year construction program for the University of Montana, page 56, have been added. The result of this evaluation is also revealed in summary of financial statistics, which indicates a general fund surplus at the end of 1945-1947 biennium in the amount of $429,803, after giving the effect of the construction program.

The proposed programs for buildings, hospitals, institutions and schools, contemplates the issuance of state bonds in the amount of $500,000 during the year 1941. These bonds have been voted. There also is contemplated the issuance of additional bonds in the sum of $1,040,000, for which an approving vote of the electorate is necessary.

o-o-o-o-o-o-o

SIX YEAR CONSTRUCTION PROGRAM

Summary

Buildings, Hospitals, Institutions
Not including units of Greater University

Estimated expenditures with Effect on Operation and Maintenance Costs

DIVISION OF GOVERNMENT 1/		Biennium 1941-43 Est. Cost	Biennium 1941-43 O & M	Biennium 1943-45 Est. Cost	Biennium 1943-45 O & M	Biennium 1945-47 Est. Cost	Biennium 1945-47 O & M	Total for 6-yr. Period
		$	$	$	$	$	$	$
GENERAL GOVERNMENT								
Capitol Building & Grounds	GF	-----	----	18,500	300	20,000	1,400	37,400
CONSERVATION & DEVELOPMENT								
Fish & Game Commission	SF	38,800	1,000	34,800	5,100	34,800	9,000	123,500
State Board of Forestry	GF	---	---	3,900	---	2,400	----	6,300
EDUCATION								
Historical Society of Mont.	SB	250,000	16,500	---	33,000	---	33,000	332,500
School for Deaf & Blind	GF	21,000	---	2,000	---	---	---	23,000
HOSPITALS & INSTITUTIONS								
Mont. State Hospital	SB	500,000	---	---	---	---	---	500,000
Mont. State Hospital	GF	---	31,000	9,000	62,000	7,000	62,000	171,000
Tuberculosis Sanitarium	GF	37,500	---	12,000	6,400	---	6,400	62,300
Orphans' Home	GF	2,500		23,500	450	---	2,900	29,350
Orphans' Home	SB	---	---	---	---	45,000	---	45,000
Mont. Soldiers' Home	GF	5,000	---	---	----	1,500	---	6,500
Mont. State Training School	GF	3,000	---	17,500	750	---	6,500	27,750
Mont. State Training School	SB	---	---	50,000	---	---	---	50,000
State Industrial School	GF	---	---	15,000	1,445	5,000	2,902	24,347
State Industrial School	SB	---	---	35,000	---	---	---	35,000
Vocational School for Girls	GF	1,200	---	12,200	-190	---	-380	12,830
State Prison	GF	---	---	30,000	---	---	600	30,600
State Prison	SB	---	---	25,000	---	---	---	25,000
Totals		$859,000	$48,500	$288,400	$109,255	$115,700	$121,522	$1,542,377
Summary	General Fund	GF	70,200	31,000	143,600	71,155	35,900	79,522	431,377
	State Bonds	SB	750,000	16,500	110,000	33,000	45,000	33,000	987,500
	Special Funds	SF	38,800	1,000	34,800	5,100	34,800	9,000	123,500

1/ Method of Financing.

FINANCIAL STATISTICS - STATE OF MONTANA

GENERAL FUND: REVENUES:
Expenditures & Requirements

SOURCE	Historical Period 1931-33	1933-35	1935-37	1937-39	Future Period 1939-41	1941-43	1943-45	1945-47
Property Tax	$1,427,539	$1,068,540	$1,332,280	$1,288,430				
Income Tax	0	200,255	459,137	468,256				
Inheritance Tax	330,725	209,100	173,601	467,877				
Other Excise Taxes	765,170	872,661	1,772,313	2,849,893				
Licenses & Fees	847,131	1,360,301	1,772,097	2,009,742				
Gr. "U" Funds	549,425	578,833	742,298	758,293				
Custodial Inst. Funds	258,259	256,594	264,554	308,938				
Departmental Funds	196,443	180,176	232,325	289,705				
Liquor Profits	0	230,000	853,334	2,093,394				
Other Sources	62,864	32,826	89,077	487,547				
Interest	70,157	43,875	18,515	22,973				
Transfer to Int. & Sink.Fund		-35,641	-744,796	-674,180				
Total (revenues) - - - -	$4,507,713	$4,397,521	$6,964,735	$10,369,868	$10,552,000	$10,453,000	$10,561,000	$10,669,000
Bonds Sold	$4,053,500	183,500	--	--				
Balance or Deficit	-3,929,842	-852,741	-1,283,687	-381,392	108,000	320,000	265,065	313,575
NET:- - - - - - - - - - - -	$4,631,371	$3,728,280	$5,681,049	$ 9,988,476	$10,660,000	10,773,000	10,826,065	10,982,575
EXPENDITURES & REQUIREMENTS:								
General Government	1,288,223	1,355,676	1,318,467	1,317,922				
Conservation Development	513,506	402,466	375,630	640,979				
Education	226,748	159,302	181,755	235,093				
Health & Sanitation	90,037	74,298	87,950	88,029				
Hospitals & Institutions	1,674,341	1,483,420	1,777,743	1,781,952				
Protection;Person & Property	56,384	33,384	51,358	68,846				
Welfare	164,733	146,078	835,515	4,225,641				
Business Relations	150,994	123,760	164,286	156,608				
Interest	363,645	84,486	50	0				
Misc. & Refunds	49,874	119,665	54,911	39,431				
Total, (Exp.& Requirem'ts)	$4,578,485	$3,982,525	4,847,665	7,554,501	$10,340,000	$10,340,000	$10,340,000	$10,340,000
Revolving Fund Transfer	905,627	1,029,442	1,214,775	1,325,576				
SIX-YEAR PROGRAM:								
Increase O. & M.						32,335	88,290	117,922
Construction Cost						117,900	36,200	36,500
Increase O. & M.						2,200	11,300	24,840
Construction Cost						15,500	36,700	33,500
Total, Six-Year Program						167,935	171,490	212,762
Total Exp. & Req.	5,484,112	5,011,967	6,062,440	9,880,077	10,340,000	10,507,935	$10,511,490	$10,552,762
BALANCE OR DEFICIT:	$ -852,741	$-1,283,687	$ -381,392	$ +108,399	$ +320,000	$ +265,065	$ +313,575	$ +429,803

PROPOSED FUTURE PROGRAM

Items listed in the following Sections under the column designated "future" constitute the deferred projects which may be set up later as a public works program. Summarized, they are: -

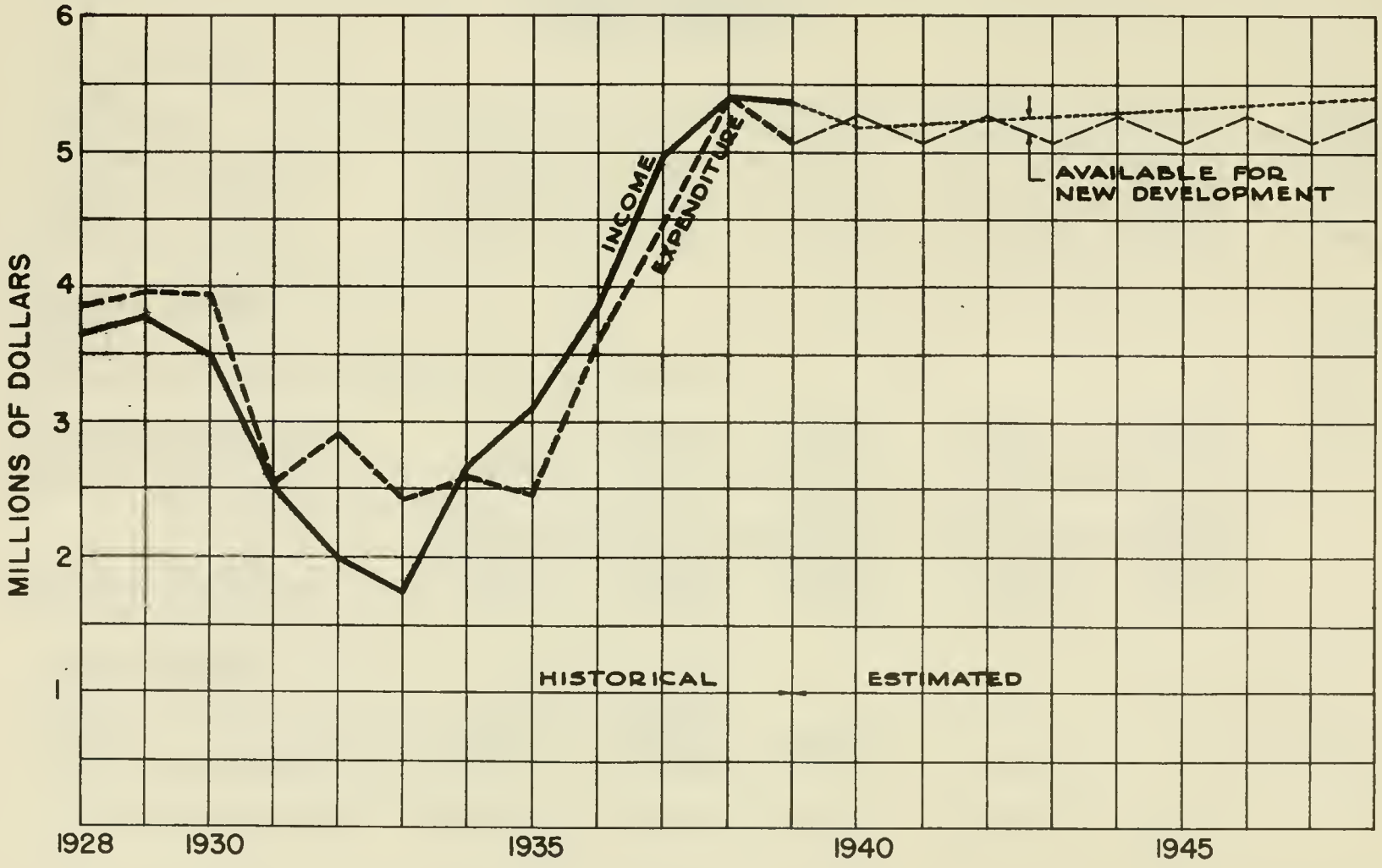
SECTION	INSTITUTION	"FUTURE"
2.	Capitol Bldg. & Grounds	$ 83,000.
3.	Livestock Sanitary Board	31,000.
	Fish & Game Commission	0
	State Board of Forestry	480,000
	Historical Society of Montana	0
4.	Montana School for the Deaf and Blind	256,800
5.	Mont. State Hospital	209,000
	Tuberculosis Sanitarium	435,000
	Orphans Home	17,500
	Mont. Soldiers Home	132,000
	Mont. State Training School	100,000
	Mont. State Industrial School	0
	Vocational School for Girls	28,600
	Montana State Prison	190,000
6.	Montana State University	1,660,000
	Montana State College	1,223,000
	Montana School of Mines	34,000
	State Normal College	131,300
	Eastern Mont. State Normal	315,000
	Northern Montana College	1,277,000
	Total, Institutions, - - - - -	$6,603,200
8.	State Water Conservation Board Projects	31,877,408
TOTAL		$38,480,608

To the above total can be added an indefinite amount for the Montana Highway Department's program.

LONG TERM PROGRAM
OF
CAPITAL EXPENDITURES

GRAPH OF GENERAL FUND

STATE OF
MONTANA



FINANCIAL STATISTICS
STATE OF MONTANA

STATE BONDED DEBT:

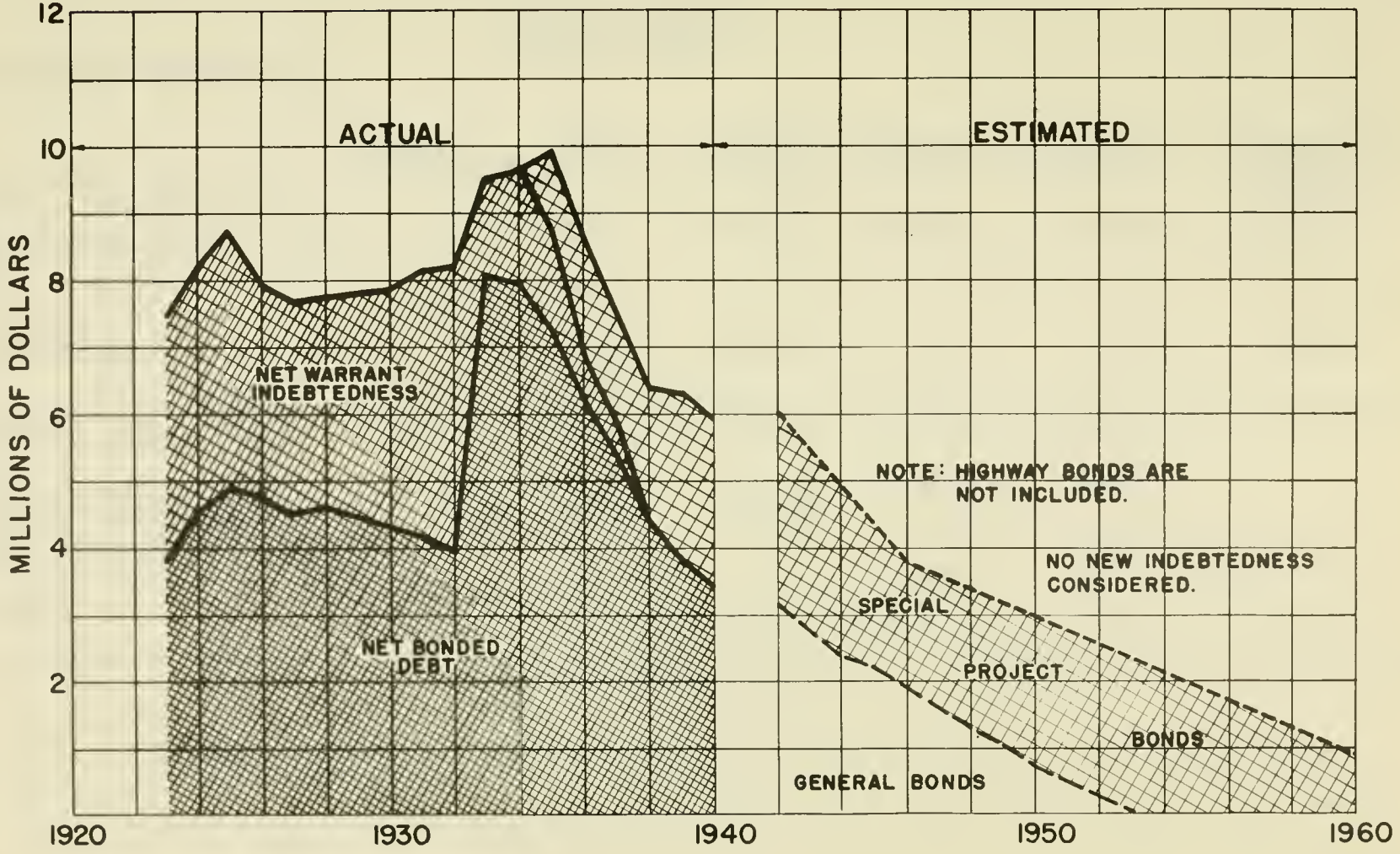
STATE BONDS:	1931-33	1933-35	1935-37	1937-39	1939-41	1941-43
Outstanding, July 1st,	$5,588,735	$8,235,014	$8,211,925	$6,033,178	$4,598,753	$3,737,225
Redeemed & Refunded	1,407,221	1,406,589	2,178,747	1,436,425	1,491,753	938,000
Issued	4,053,500	1,383,500	0	0	632,225	
Outstanding,June 30th	8,235,014	8,211,925	6,033,178	4,596,753	3,737,225	2,799,225
SIX-YEAR PROGRAM:						
Issued						500,000
Redeemed						160,000
Outstanding, June 30th (giving effect of Program)						3,139, 225
S. P. BONDS OUTSTANDING	0	1,262,000	1,791,000	2,495,000	2,385,000	2,145,000
Sinking Funds	75,483	939,595	668,273	760,298	750,000	

	1943-45	1945-47	1947-49	1949-51	1951-53
Outstanding, July 1st	$2,799,225	$2,151,000	$1,621,000	$1,051,000	436,000
Redeemed & Refunded	648,225	530,000	570,000	615,000	436,000
Outstanding,June 30th	2,151,000	1,621,000	1,051,000	436,000	0
SIX YEAR PROGRAM:					
Issued	215,000	285,000			
Redeemed	320,000	235,000	285,000		
Outstanding, June 30th	2,386,000	1,906,000	1,051,000	436,000	0
S. P. BONDS OUTSTANDING	1,945,000	1,745,000	1,545,000	1,345,000	1,145,000

LONG TERM PROGRAM
OF
CAPITAL EXPENDITURES

BONDED & WARRANT INDEBTEDNESS

STATE OF
MONTANA



FINANCIAL STATISTICS
STATE OF MONTANA

DEBT SERVICE REQUIREMENTS:

	1931-33	1933-35	1935-37	1937-39	1939-41	1941-43
Prin. & Int. State Bonds	$1,829,939	$ 845,674	$2,729,453	$1,809,885	$1,293,903	$1,201,565
Six-Year Program,Prin.& Int.						165,000
TOTAL,Giving Effect of Program	1,829,939	845,674	2,729,453	1,809,885	1,293,903	1,366,565
Interest Warrants	363,645	84,486	50	0		
S. P. BONDS:	0	14,040	267,662	243,271	275,000	275,000

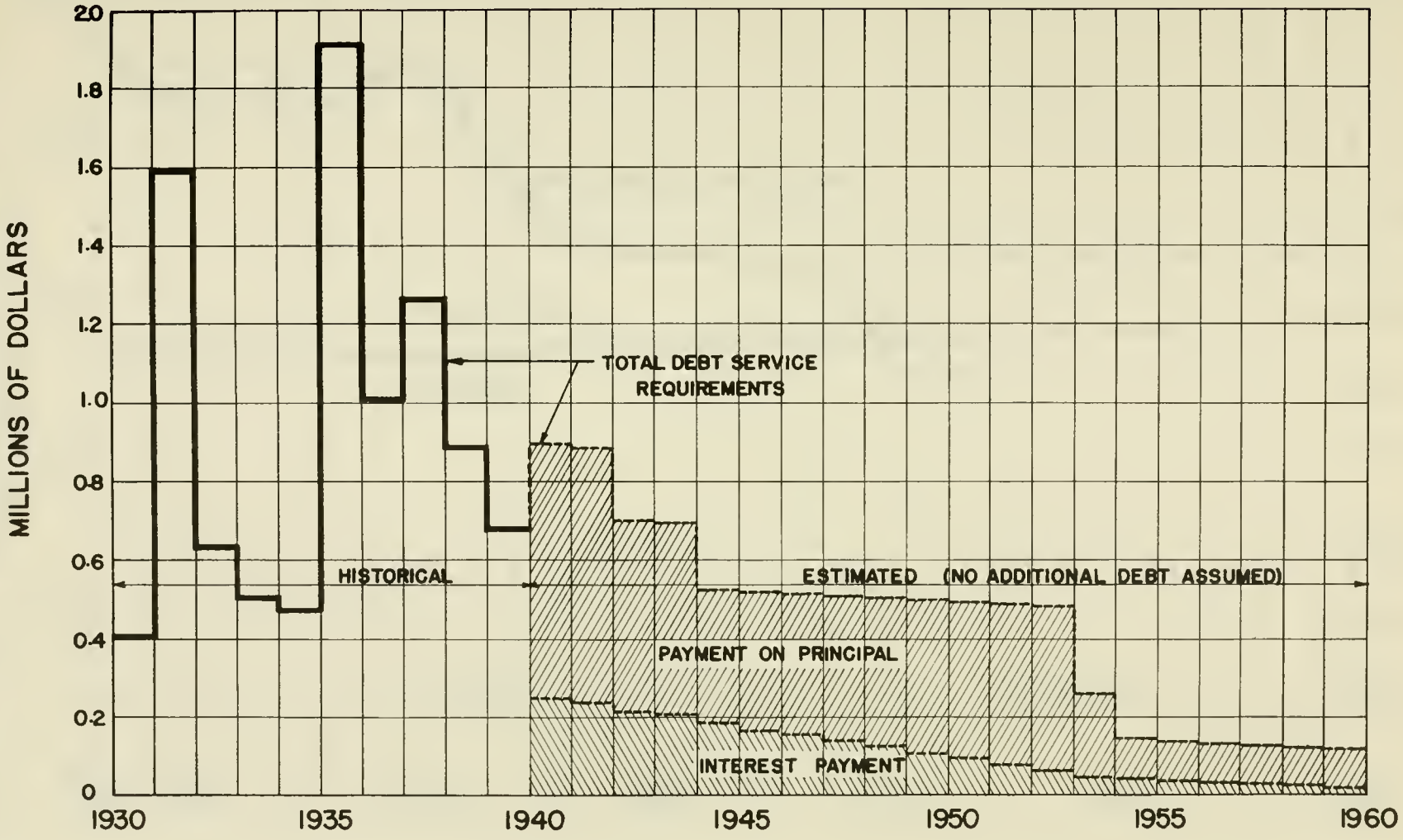
DEBT SERVICE REQUIREMENTS:	1943-45	1945-47	1947-49	1949-51	1951-53
Prin. & Int. State Bonds	$ 871,172	$ 701,880	$ 677,081	$ 674,780	$ 436,000
Six-YearProgram,Prin. & Int.	325,000	240,000	288,000	0	0
TOTAL,Giving Effect of Program	$1,196,172	941,880	965,081	674,780	436,000
S.P.BONDS	265,000	250,000	230,000	220,000	210,000

FINAL PAYMENTS DUE 1965

LONG TERM PROGRAM
OF
CAPITAL EXPENDITURES

DEBT SERVICE REQUIREMENTS

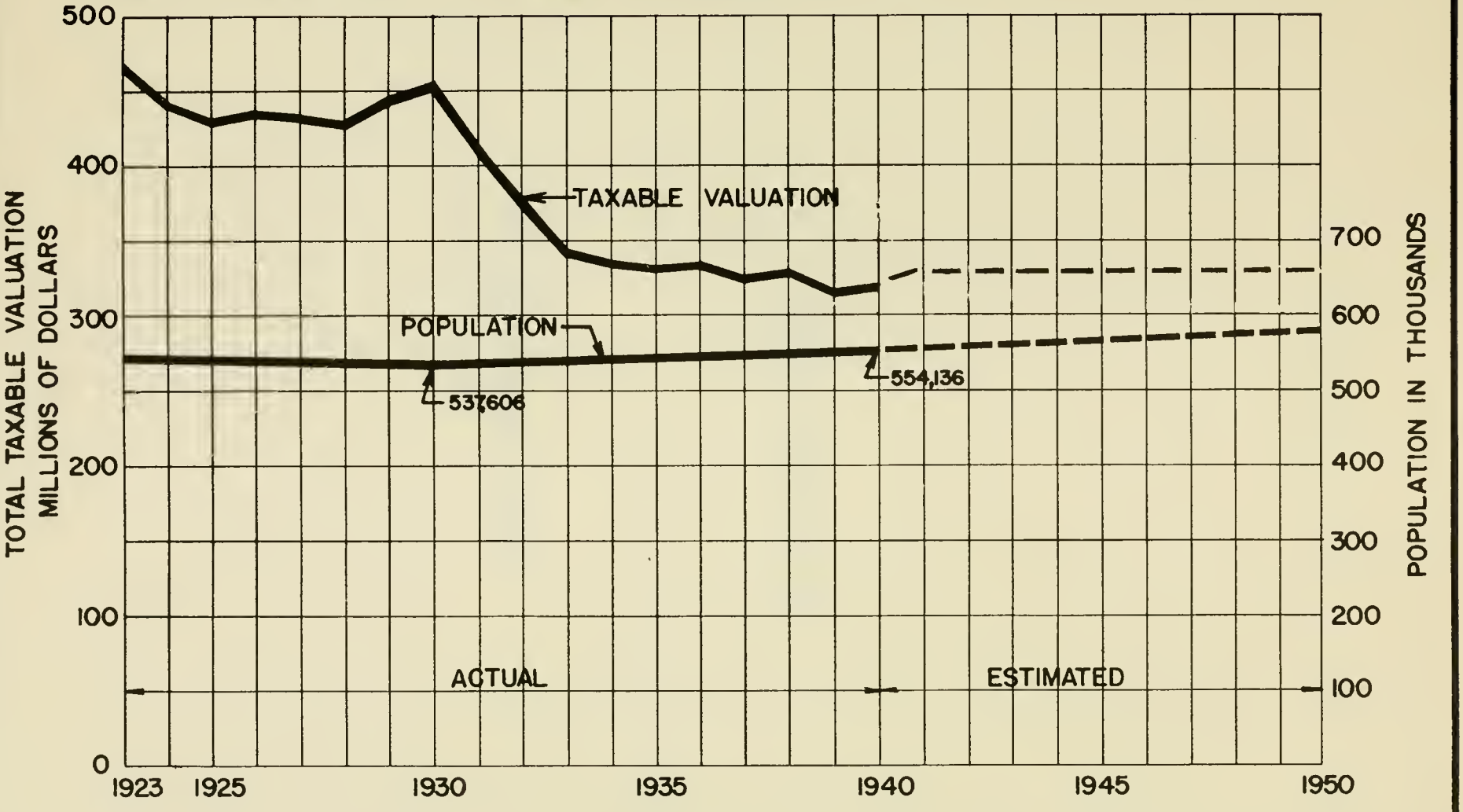
STATE OF
MONTANA



LONG TERM PROGRAM
OF
CAPITAL EXPENDITURES

TAXABLE VALUATION AND POPULATION

STATE OF
MONTANA



SECTION 2.

CAPITOL BUILDING AND GROUNDS

Helena, Montana.

CAPITOL BUILDING AND GROUNDS
Helena, Montana
L. H. Foreman, Custodian

o-o-o-o

The central section of the capitol building was erected in 1889. This part of the structure is a combination brick and steel frame, with center concrete floor slabs and exterior trim of sandstone. In 1901 a wing was added to each end of the main building, both of which are faced with granite.

The tile floor surface on the corridors of the first floor, and to some extent on the second floor, are in a poor state of repair, owing to trucking across the floors. The tile surface is supported by reinforced concrete slabs of poor quality. Some consideration has been given to replacing this slab, which cost has been estimated at $40,000. This item has been included in the "future" program.

1. Burner in Steam Plant: All buildings in the capitol group, with the exception of the highway building, are heated from a central steam plant, Heat is supplied from three gas burning boilers. The present burner causes considerable vibration, which is doing much damage to the brickwork of the furnace.

At least one boiler should be equipped with a combination gas and oil burner as a standby protection against possible breaks in the gas main supplying the station. Should the gas main break, the boiler plant would immediately be out of commission, and if this should happen in very cold weather, it would only be a few hours until freezing pipes in the capitol building would cause much damage.

2. Repair of Roof and Sandstone Coping : The old portion of the building is developing serious trouble along the cornices where water from the roof and gutter has found its way down to the projecting sandstone forming the cornices, and is gradually washing the mortar joints, which causes the sandstone to disintegrate and spall. The result will be serious if permitted to continue very long. The roof and gutters should be repaired to prevent water from getting through to the sandstone below, and all joints should be raked and refilled with portland cement mortar.

3. Repair two elevators: The capitol building was designed for two passenger elevators and one freight elevator. However, only one passenger elevator is in service, the other two being obsolete and out of repair. It is contemplated to place the other two in service, thus relieving the demand on the one now in use. When the freight elevator is repaired, freight will no longer be handled in the passenger station elevator, and trucking through the main corridors will become much less. It is this freighting which has damaged the corridor floors. The completion of the second passenger elevator will permit much better service for the building.

4. Steam Tunnel: There is a connecting steam tunnel from the main building to the steam heating plant, but the steam lines running to the restaurant building, livestock building, and public health building, are laid in tile. Whenever trouble develops in the tile lines, excavations have to be made and the trouble located, before repairs can be effected. Sometimes much difficulty is encountered in locating the trouble. The highway building has an independent heating unit. There is ample capacity at the main heating plant for also carrying the highway

building at a very material saving in labor costs.

5. Front Entrance: In 1933 a CWA project was inaugurated to renovate and repair the main building, but the money was exhausted before all of the proposed work was completed. The front entrance was dismantled at the time and never entirely replaced. The present granite steps lead up to a temporary porch of planking, supported on a wooden frame. This porch, when completed, will be of reinforced concrete construction, with granite trim. Sufficient cut stone to finish the porch is now on the site.

6. Ground Lighting: The grounds are very inadequately illuminated at night, the only lighting at present being the city street lights.

7. Land: The boiler blow-off and drain pipes from the steam plant discharge into a ravine on private property. If the owner at any time should require the state to discontinue this practice, the state would have to resort to other means of handling the disposal lines. It is suggested that the property be purchased to eliminate possible trouble from this condition.

o-o-o-o-o-o-o

Capitol Building and Grounds,
Helena,
L. H. Foreman, Custodian

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

General Government

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Burners in Steam Plant	GF		5,000		5,000	
2. Repair Roof & Sandstone C.	GF		7,500		7,500	
3. Repair Two Elevators	GF		6,000		6,000	
O. & M.	GF		300	600	900	
4. Steam tunnel, capitol bldg. to cafe, livestock, health and highway bldgs.,	GF			20,000	20,000	
O. & M. (saving)	GF			- 2,000	- 2,000	
5. Complete front entrance	GF					30,000
6. Ground Lighting	GF					10,000
7. Land	GF					2,000
8. Replacing concrete tile floor	GF					40,000
SUMMARY:						
Total General Fund	GF	$ 0	$18,800	$18,600	$37,400	$82,000

1/ Financing Method

SECTION 3.

CONSERVATION - DEVELOPMENT

LIVESTOCK SANITARY BOARD,
Helena, Montana.

FISH AND GAME COMMISSION,
Helena, Montana.

STATE BOARD OF FORESTRY,
Missoula, Montana.

LIVESTOCK SANITARY BOARD
Helena,
W. J. Butler, State Veterinary Surgeon
Executive Officer.

o-o-o-o

The present building occupied by the Livestock Sanitary Board, was built from moneys received from a special tax on livestock, and was not constructed by moneys obtained from the general fund of the state. From time to time, new duties have been added to the work of the Board, which of necessity has to be done in the cramped quarters of the original laboratory. It is proposed to build an addition to the present building in order to efficiently keep up with the growing demands, but additional land will have to be purchased for the site.

The work of supervising the production and distribution of milk and cream for human consumption, as well as the work of controlling poultry diseases, have been added to the duties of the Board since the passage of the original bill creating the present organization. No additional appropriations have been made for carrying out these new duties. The annual reports of the Board show that approximately fifty percent of its work is in supervising milk and cream production and the control of poultry diseases, These two important endeavors require so much time and space that on many occasions the present laboratory is not adequate to take immediate care of investigational and diagnostic work which requires attention. Below is a quotation from a letter by W. J. Butler, Chief of the Livestock Sanitary Board:-

"In the past, nutrition has not received sufficient

attention, with the result that many diseases of the human family, as well as domestic animals, have developed, due to faulty nutrition. Probably never in the history of the world has the subject of nutrition been so important as at the present time. Undoubtedly, many of the refugees of war-torn Europe and their offspring, who will find a haven of refuge in the United States, will show evidence of malnutrition for several years to come. We, in the United States, not only must provide proper nutrition for such refugees, but we must take added precautions to see that our own people do not suffer from malnutrition.

" A properly organized livestock sanitary board, and the veterinary professions, are absolutely essential in any comprehensive program for the prevention of nutritional defects in the human family, as well as domestic animals. Nutritional defects in meat-producing animals are directly reflected in the human family.

" Our present facilities are much too small for carrying on the work that the future will require if we are to maintain our livestock and poultry in a superior position."

It is the policy of the Board to prevent diseases rather than cure them, and in order to continue this policy it is necessary to have the proper facilities.

Livestock Sanitary Board,
Helena,
W. J. Butler, State Veterinary Surgeon

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Conservation and Development.
Department: Livestock Sanitary Board

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Extension to Livestock Building	GF					20,000
2. Furniture and Equipment	GF					10,000
3. Land	GF					1,000
SUMMARY: General Fund, Total	GF					31,000

1/- Financing Method.

FISH AND GAME COMMISSION
Helena,
J. W. Schofield, Superintendent,
Department of State Fisheries

o-o-o-o-o

The Fish and Game Commission receives its revenues from the sale of hunting and fishing licenses, and does not depend upon the legislature to earmark funds for definite projects.

1. Screens: This item includes the installation of large and small screens in many irrigation ditches to prevent the loss of fish. In addition to the cost of installation, there will be a yearly maintenance expense to cover the cost of labor necessary to keep the screens cleaned, repaired, and removed during ice periods, and reconditioned every spring.

2. Stream Survey: It is quite important in the propagation of fish life to have some knowledge of the food supply, water temperatures, etc., of streams and lakes where fish are liberated. This information can only be gathered from surveys and studies, the results of which have an important relationship to the efficiency of the department and the rapidity of restocking streams.

3. Rearing Ponds: Rearing ponds are necessary to develop young fish during the intervening period between hatching, and the stage when they are large enough to liberate in the lakes and streams. The department has several such ponds now, but many more are needed.

4. Additions to Hatcheries: Larger quarters and better facilities are an urgent need at the various hatcheries.

5. Foreman's Residence: This building is essential to the operation of rearing ponds and hatcheries.

Fish and Game Commission,
Helena,
J. W. Schofield, Superintendent,
State Fisheries.

SIX-YEAR CONSTRUCTION PROGRAM

STATE OF MONTANA

Conservation and Development

Department: Fish and Game Commission

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
1. Screens, Irrigation Ditches	SF	$20,000	$20,000	$20,000	$60,000	
O. & M.	SF	1,000	5,000	9,000	15,000	
2. Stream Survey	SF	4,800	4,800	4,800	14,400	
3. Rearing Ponds	SF	4,000	4,000	4,000	12,000	
4. Additions to present hatcheries	SF	4,000	4,000	4,000	12,000	
5. Foreman's Residence	SF	4,000			4,000	
O. & M.	SF		100		100	
6. Miscellaneous Additions and Betterments	SF	2,000	2,000	2,000	6,000	
SUMMARY:						
Total, Special Funds	SF	39,800	39,900	43,800	123,500	

1/- Financing Method

STATE BOARD OF FORESTRY
Missoula,
Rutledge Parker, State Forester

o-o-o-o-o

The State Forester is charged, among other things, with the duty of fire protection on state lands. In this connection he works in close co-operation with the United States Forest Service.

1. Field Headquarters Building: The construction of a building is proposed, to be located at a point most convenient and centrally located with reference to state forest areas.

2. Fire Station Equipment: Grass fires frequently occur on state-owned land in the eastern section of the state, and it is proposed to install fire-fighting equipment at several points to control these grass fires.

3. Telephone Lines: Telephone lines for rapid communication between fire lookout stations and forest headquarter offices are a very necessary adjunct to fire-fighting in the forests.

4. Reclaim cut-over lands: There are many acres of land in the state of Montana that are suitable for reforestation. This work can best be done with the assistance of federal funds.

State Board of Forestry
Missoula,
Rutledge Parker, Forester

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Conservation and Development
Department: Board of Land Commissioners

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Field Headquarters Bldg.	GF		1,500		1,500	
2. Fire Station Equipment	GF		900	900	1,800	
3. Telephone Lines	GF		1,500	1,500	3,000	
4. Reclaim Cutover Lands	GF					180,000
" " "	OF					270,000
5. Land	GF					30,000
SUMMARY:						
Total, General Fund	GF		3,900	2,400	6,300	210,000
Total, Outside Funds	OF					270,000

1/- Financing Method.

SECTION 4.

EDUCATION OTHER THAN

UNITS OF THE GREATER UNIVERSITY

HISTORICAL SOCIETY OF MONTANA,
Helena, Montana.

MONTANA SCHOOL FOR THE DEAF AND BLIND,
Great Falls, Montana.

HISTORICAL SOCIETY OF MONTANA
Helena,
John B. Ritch, Librarian

o-o-o

Montana has an excellent collection of historical material, but the housing facilities are inadequate. At the present time the library occupies the basement and the first floor of a part of the east wing of the capitol building. The space is not adequate to take care of the normal accumulations of library materials. Many historical volumes, papers and relics, now owned by private individuals, will be donated to the State Historical Library when space is provided.

The wealth of Montana's early history is outstanding in the nation, and every effort should be made to collect and preserve all available records and relics before it is too late, but such an attempt is futile until additional housing space can be provided.

The 27th Legislative Assembly, 1941, passed an Act (Chap. 79),authorizing the issuance of bonds in the amount of $250,000 for building a memorial building on the Capitol grounds to house the Veteran's organizations, the Historical Society of Montana; Montana Pioneers; Sons and Daughters of Montana Pioneers, and the property of the historical library. The building is to be known as the Montana Veterans and Pioneers Memorial Building.

Special bonds will be issued, which are secured from income from money in the Veteran's Memorial Fund and the Capitol Building Fund. The Capitol Building Fund has an annual income of approximately $25,000 a year from the rental of lands granted to the state by the federal government for capitol building purposes, and the last capitol bonds mature in 1944.

Historical Society of Montana,
Helena,
John B. Ritch, Librarian.

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Education:
Department: Historical Society of Mont.

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Mont. Veterans and Pioneers Memorial Building.	SB*	250,000		0	250,000	
O. & M.	SF	16,500	33,000	33,000	82,500	
Debt Service	SF	18,750	36,563	36,563	91,876	
SUMMARY:						
Total Special Bonds	SB	250,000	0	0	250,000	
Total Debt Service	SF	35,250	69,563	69,563	174,376	

*- Proposed project special bonds, either serial or amortized in not less than 20 years, at not more than 4%; redeem option 5 years.

1/- Financing Method.

MONTANA SCHOOL FOR THE DEAF AND BLIND
Great Falls,
Edwin G. Peterson, President

o-o-o-o-o

This school was originally established at Boulder in 1893, in conjunction with the state training school.

After considerable agitation to separate the deaf and blind from those mentally deficient, the former class of pupils were moved to Great Falls, where the present school for the deaf and blind is housed in a single building constructed as a PWA project, without cost to the general fund of the state. Bonds secured by rentals from a land grant were issued to cover the PWA loan.

1. Floors: The basement floors have been badly damaged by the upward thrust of the underlying gumbo soil, which has undoubtedly been caused by water seeping underneath the building. This has cracked the floors badly, and in some places they have beamed as much as five inches, which is a serious hazard to the blind.

A contractor in Great Falls analyzes the trouble as follows:- The main walls of the building are built of beams carried on columns resting on shale rock. This accounts for the good structural condition of the outside walls. The outside surface of the ground is higher than the basement floor inside the building, so that the surface water from rain and irrigation is constantly soaking through the gumbo and under the floor. The contractor recommends that a double drain tile be placed around the building to collect all seepage and carry it into the sewer. The floors will have to be torn out and relaid on tamped ground.

2. Class Room and Dormitory: The present building is overcrowded, with an enrollment of 113 pupils. There are now twenty-five deaf and blind children in the state who should be in the school, but there is no room for them.

It is not satisfactory to have the deaf and blind in the same building as their needs and requirements are so entirely different. A building for the blind should have recessed doors, built-in radiators, and other safety features. Locker rooms and wash rooms for the blind should have two exits.

The vocational shops in the present building are so arranged that it is impossible to prevent the noise of machinery from interfering with class room work. The proposed new building is to be used for housing the blind, and the annual expense of maintenance and operation for same is estimated at $5,380.

3. President's Residence: It is quite essential to have a President's residence on the campus as he is subject to call at any time of day or night. As it is now, the President is compelled to reside too far from the school.

Montana School for the Dead & Blind,
Great Falls,
Edwin G. Peterson, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Education:
Department: Charity & Welfare

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Repair Basement Floor	GF	21,000			21,000	
2. Athletic Field	GF		2,000		2,000	
3. Class Room and Dormitory	SB					240,000
4. President's Residence	SB					16,800
SUMMARY:						
Total State Bonds	SB	C	0	C.	0	256,800
Total General Fund	GF	21,000	2,000	0	23,000	0

1/- Financing Method

SECTION D.

HOSPITALS AND INSTITUTIONS

MONTANA STATE HOSPITAL
Warm Springs, Montana.

TUBERCULOSIS SANITARIUM,
Galen, Montana.

ORPHANS HOME,
Twin Bridges, Montana.

MONTANA SOLDIERS HOME,
Columbia Falls, Montana.

MONTANA STATE TRAINING SCHOOL
Boulder, Montana.

STATE INDUSTRIAL SCHOOL,
Miles City, Montana.

VOCATIONAL SCHOOL FOR GIRLS
Helena Valley, Montana.

MONTANA STATE PRISON,
Deer Lodge, Montana.

MONTANA STATE HOSPITAL
Warm Springs,
Byron L. Pampel,M.D.,Supt.

o-o-o

This institution owns 1,285 acres of ground, most of which is farm land. There are approximately 1,900 inmates in the institution and all buildings are crowded to capacity. At the November,1940 general election, the electorate of Montana voted a $500,000 bond issue for new buildings and repairs to the present plant. The first six items shown on the following tabulation are to be constructed from the proceeds of said authorized bond issue. Needs for the balance of the program are as follows:-

7. Metal Fire Escapes: Several of the present buildings do not have proper fire escapes. This item is a necessity to insure adequate protection to human life in case of a bad fire.

8. Fire Mains and Hydrants: The present fire hydrants have been in service for many years, and are not properly placed to protect the building. It is 400 feet from the rear of the hospitals to the nearest fire plugs. Relocation of the hydrants is essential to insure more efficient fire protection.

9. Mattress Factory: The hospital maintains a factory where old mattresses and upholstery are rehabilitated. The institution is required to do a large volume of work in this department. The machinery is obsolete and inadequate, and working conditions in the small room are unhealthy.

10. Farm Buildings: Several small farm buildings are needed,as well as additions to existing buildings.

11. New Morgue: The post-mortem facilities are inadequate. Better instruments and more cooling space are essential. The present morgue is entirely unsuitable for the purpose.

12. Dairy and Pasteurization: The present dairy buildings are old and it is difficult to maintain proper sanitary conditions. To fully meet health requirements it is essential to erect a new building and install pasteurization equipment.

13. Elevators in Clinic: There are no elevators in any of the hospital buildings, with the exception of an old one in the clinic building. Food elevators should be installed to increase the efficiency of service rendered those patients who are unable to attend the dining room.

14. Central Heating Plant: The present heating plant is not centrally located in respect to the various buildings served. A new plant properly located would utilize gravity for return condensation without the continual use of pumps, and would result in savings in fuel and power.

15. Shop Building and Equipment: The various shops are housed in separate buildings, scattered over the grounds. If the carpenter, electric, plumbing and paint shops could all be combined under one roof, there would be a saving in heating, efficiency and maintenance, and much complicated wiring and loss of electrical energy could be eliminated.

16. Additions to Administration Bldg: The facilities of the present building for proper filing space for both the individual patient records and the accounting records are inadequate. The individual records must be kept for several years and the present vault is too small for such accommodation. An addition to the present office space and a new vault are proposed.

Montana State Hospital,
Warm Springs,
Byron A. Pampel, Superintendent

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Hospitals and Institutions
Department: Hospitals, Handicapped.

Estimated Capital Expenditures Effect on Maintenance and Operating Costs.

Sheet 1 of 2.

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Male Dormitory	SB*	185,000			185,000	
O. & M.	GF	14,000	28,000	28,000	70,000	
Debt Service	SF	60,588	121,693	5,592	187,873	
2. Female Dormitory	SB*	185,000			185,000	
O. & M.	GF	14,000	28,000	28,000	70,000	
Debt Service	SF	60,588	121,693	5,592	187,873	
3. Employee's Quarters	SB*	75,000			75,000	
O. & M.	GF	1,800	3,600	3,600	9,000	
Debt Service	SF	24,562	49,335	2,267	76,164	
4. New Bake Ovens	SB*	20,000			20,000	
O. & M.(none)						
Debt Service	SF	6,550	13,156	605	20,311	
5. Laundry Building	SB*	25,000			25,000	
O. & M.	GF	1,200	2,400	2,400	6,000	
Debt Service	SF	8,187	16,445	756	25,388	
6. Addition to Kitchen	SB*	10,000			10,000	
O. & M. (none)						
Debt Service	SF	3,275	6,578	302	10,155	
7. Metal Fire Escapes	GF		5,000		5,000	

Sheet 2 of 2 - Montana State Hospital, Warm Springs. Estimated Capital Expenditures Effect on O. & M. Cost.

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
8. Fire Mains and Hydrants	GF	$	$4,000	$	$4,000	$
9. Mattress Factory	GF			3,000	3,000	
10. Farm Buildings	GF			4,000	4,000	
11. New Morgue	GF					1,000
12. Dairy and Pasteurization Equipment	GF					65,000
13. Elevators in Clinic	GF					10,000
14. Central Heating Plant	GF					75,000
15. Shop Building & Equipment	GF					38,000
16. Addition to Administration Building	GF					20,000
SUMMARY:						
Total, State Bonds	SB	500,000	0	0	500,000	
Total, Debt Service	SF	163,750	328,900	15,114	507,764	
Total, General Fund	GF	31,000	71,000	69,000	171,000	209,000

1/ Financing Method

*- Bonds are 20 year serial secured by ½ mill levy on ad valorem tax

TUBERCULOSIS SANITARIUM
Galen,
F. I. Terrill, M.D., Supt.

o-o-o-o

1. Fire Escapes in Maids Quarters: The maids' quarters do not have fire-escapes which would be adequate in case of fire.

2. Remodel Laundry: The present laundry and equipment is old and inadequate to meet needs of the institution.

3. Ground Lighting: Grounds around the hospital are only partially lighted at night. Additional lighting is desirable for the safety of patients and employees.

4. Nurses Home: During the last fiscal year a new 58-bed hospital unit was opened for the care of patients. No provision was made for dormitory space for the employees necessary to administer this unit, although it was requested. At the present time employees are housed in the hospital unit along with active cases of tuberculosis. This situation is deplorable inasmuch as these people are in direct contact with the active cases of tuberculosis not only during their working hours, but also during their living hours. It is difficult for the employees so housed, to sleep because of the coughing in the near-by room occupied by patients.

In the present nurses home as many as four girls are obliged to live in the same room. Bathroom facilities are very limited, and are far below the requirements of the Nurses' Association.

5. Tunnel: The steam pipes and water mains were installed at this institution in 1912. Many of these mains are of wooden construction and are constantly leaking. The steam lines especially are in such poor condition that repairs are continually necessary. This entails a great deal of expense because all excavating must be done by hired labor as there is no free patient labor available in a hospital of this type.

The danger of steam lines breaking during cold weather is a definite hazard to the patients, as well as to employees. This has been a constant source of worry to the administration because several times buildings have been without heat for as long as twelve hours. If these pipes were enclosed in a concrete tunnel they would be under close inspection and repairs could be easily made, without much expense.

6. Hospital Unit (50 beds): At the present time there are fifty patients on the waiting list because of insufficient accommodations at the institution. Many of these individuals have to wait three months before they can be admitted. On account of this delay many lives are lost, and many early cases of tuberculosis progress to the far-advanced stage before being admitted. Aside from the humane aspect, it is cheaper from a financial standpoint to care for the early case than for a far-advanced one, so that this long delay is increasing the cost of the treatment of the tuberculosis patients.

During the past year, it is a notable fact that more people died while waiting to be admitted, than were lost in the institution during the same period. Inasmuch as under the present modern treatment of tuberculosis, the great majority of people can be returned to health even in a far-advanced stage, one can only feel that neglect through delayed admission is an appall-

ing fact.

7. Storehouse: Yearly supplies, such as sugar, flour, salt and similar commodities, are now stored in the basement of the kitchen. Several times, due to water pipes leaking, the basement has been flooded, and considerable loss encountered in articles such as listed above. On several occasions flood conditions in the valley have inundated the store room.

In order to receive the best possible prices on staple supplies, the purchasing department buys these commodities in quantities sufficient to last one year, so that water damage means a financial loss. The basement storehouse is dark and damp, and is a very unhealthful place for employees to work.

8. Hospital Unit for 60 Ambulatory and Semi-ambulatory Patients:

At the present time ambulatory patients are housed in frame cottages, which were constructed in 1912. Semi-ambulatory patients are housed in an old, wood building, which was constructed in 1915. This building is a fire-trap, inasmuch as the foundation was placed just above the ground level, with no excavation underneath, and many of the joists have rotted, allowing the floor to sag and become unsafe. The upkeep of such buildings is considerable, and the danger of fire is great.

Tuberculosis Sanitarium,
Galen,
F. I. Terrill, M.D., Superintendent

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Hospitals and Institutions.
Department: Tuberculosis Sanitarium

Estimated Capital Expenditures Effect on Maintenance & Operation Costs.

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
1. Fire Escape, Maids' Quarters	GF	$	$ 1,500	$	$ 1,500	$
2. Remodeling Laundry	GF		8,000		8,000	
O. & M. (none)						
3. Ground Lighting	GF		2,500		2,500	
O. & M.	GF		400	400	800	
4. Nurses' Home- Furniture	GF	37,500			37,500	
O. & M.	GF		6,000	6,000	12,000	
5. Tunnel for Steam & Water Mains	SB					45,000
6. Hospital Unit, Equipment	SB					175,000
7. Storehouse	GF					35,000
8. Hospital for Ambulatory and Semi-ambulatory Patients	SB					175,000
9. New Well	GF					5,000
SUMMARY:						
Total, State Bonds	SB	0				395,000
Total, General Fund	GF	37,500	18,400	6,400	62,300	40,000

1/ Financing Method

-41A

ORPHAN'S HOME
Twin Bridges,
G. H. Davie, President

This institution was founded in 1892. It now has fifteen buildings, besides laundry, steam plant, and dairy barns. All buildings have brick walls, wood frame interiors, and shingled roofs. Each cottage houses about fifty children. The dormitory is upstairs, with living room and repair room downstairs.

1. Sun Room on Nursery: The present building has no facility where the little children can play in the sunshine on days when it is too cold outside.

2. Convalescent Room: The hospital has three wards for sick children, but no space where children can be placed during their convalescent period. Under present conditions such patients are retained with other sick children, which is inadvisable.

3. Fire Escapes: The cottage dormitories have no exits except by way of the stairs. On one side of each cottage there is a porch where iron ladders can easily be added. On the other side it is proposed to add an iron platform and ladders from the center of each building to the ground.

4. Auditorium Exit: At present there is only one exit from the auditorium. The addition requested is to provide an exit from the stage to the outside in case of emergency.

5. School Room and Cottage Lighting: The present lighting system in the school house and some of the cottages is poor and inadequate. Three buildings have already been improved. The money asked for is to complete the work.

6. Thermostatic Control on Radiators: Some thermostatic controls have already been installed on radiators, but many more are needed. This installation will effect a saving in operation costs and at the same time provide more uniform temperatures.

Orphans Home,
Twin Bridges,
G. H. Davie, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Hospitals and Institutions.
Department: Institution for Handicapped

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
1. Sun Room & Play Room Nursery	GF	$	$ 8,000	$	$ 8,000	$
O. & M.	GF		1,300	2,600	3,900	
2. Convalescent Room	GF		2,500		2,500	
O. & M. (none)						
3. Fire Escapes, and						
4. Auditorium Exit	GF	2,500			2,500	
5. School Room-Cottage Lights	GF		3,000		3,000	
O. & M.	GF		400	400	800	
6. Thermostatic Control on						
Radiators	GF		5,000		5,000	
O. & M. (saving)	GF		-1,250	-2,500	-3,750	
7. Chlorinator for Plunge	GF		5,000		5,000	
O. & M. (none)						
8. Boys' Cottage	SB			45,000	45,000	
O. & M.	GF			2,400	2,400	
9. Cottage for Help	GF					17,500
O. & M.(none)						
SUMMARY:						
Total, State Bonds	SB	0	0	45,000	45,000	0
Total, General Fund	GF	2,500	23,950	2,900	29,350	17,500

1/ -Financing Method

MONTANA SOLDIERS HOME
Columbia Falls
C. W. McConnell, Commandant

There are approximately 80 inmates at this Home which is capable of caring for 125. The largest number cared for during the past ten years has been 96 (in 1932). Most of the buildings are old, with brick exterior walls, wood floors and interior finish. The institution is located on a 160 acre tract, of which 90 acres are farmed. None of the inmates will work on the premises without pay.

1- Laundry Building & Machinery: The laundry is very poorly located on the second floor of an old frame building. Floor joists are rotten from the moisture. The equipment is obsolete and should be replaced.

2- Water Mains: The Health Department and Fire Underwriters have requested that the various water mains supplying this institution be inter-connected so as to form a loop. This would give better insurance of an adequate water supply at all buildings in case of fire.

3- Home Water Supply: This item provides for installing an independent water supply, consisting of a well, pump and tank. At the present time all water used is purchased from the City of Columbia Falls at meter rates.

4- New Main Building: The present main building is in a bad state of repair. All parts of the building need attention. This includes floors, exterior and interior walls, painting, new plumbing, etc. After repairing the building it would still be an old structure, poorly adapted for its present use. Rather than attempt repairs, a new building is proposed.

5- Shop Building: At the present time the smallest machine jobs, horseshoeing, and everything of the kind has to be done outside the Home. It is proposed to construct a shop and equip it with tools so repairing can be done on the premises.

SIX-YEAR CONSTRUCTION PROGRAM

Montana Soldiers Home,
Columbia Falls,
C. W. McConnell, Commandant

STATE OF MONTATA

Hospitals and Institutions
Institution for Handicapped.

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Laundry Bldg., & Machinery	GF	5,000			5,000	
2. Water Mains	GF			1,500	1,500	
3. Home Water Supply	GF					10,000
4. New Main Building	SB					120,000
5. Shop Bldg., & Equipment	GF					2,000
SUMMARY:						
Total, State Bonds	SB	0	0	0	0	120,000
Total, General Funds	GF	5,000	0	1,500	6,500	12,000

1/ Financing Method

MONTANA STATE TRAINING SCHOOL
Boulder,
Howard Griffin, President

o-o-o-o-o

This plant originally housed the deaf, blind and feeble-minded, in a building constructed about 1898. Gradually additions were made until there were three main buildings. In 1912 the feeble-minded were moved to new quarters, about one-half mile distant, where they are now housed in six good, brick buildings with tile roofs. The farm comprises a total of 2,100 acres, 600 of which are farmed and the balance is pasture. The present population is 460, which is the capacity of the buildings now in use. There are approximately 260 on the waiting list to enter the institution, but no additional patients are being accepted, for lack of adequate accommodations. Mr. Griffin estimates the plant would accommodate about 700 inmates if all buildings were placed in condition.

1. Addition to Laundry and Equipment: The present laundry, which is housed with the steamheating plant, does not have sufficient floor space. The mangle and the washers are very old, almost beyond repair. It is proposed to build an extension to the present steam plant to house the laundry and install new equipment.

2. Addition to Hospital: The present hospital accommodations are insufficient to meet the demands of the institution. All beds are filled, and the hospital is crowded.

3. Hog Building: The present hog house is an old log building. A modern building is proposed to care for this ranch activity.

4. Steam Heating Plant: The present plant has been in service about 30 years. It is expensive to operate, and is estimated to consume from 25 to 40% more coal than should be required.

5. Minor repairs of the main building were initiated but could not be completed for lack of funds. The last legislature appropriated $3,000 to complete this unit.

Montana State Training School,
Boulder,
Howard Griffin, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Hospitals and Institutions
Institution for Handicapped

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
		$	$	$	$	$
1. Addition to Laundry Equipment	GF		15,000		15,000	
O. & M.	GF		750	1,500	2,250	
2. Addition to Hospital	SB		50,000		50,000	
O. & M.	GF			5,000	5,000	
Debt Service	SF			50,500	50,500	
3. Hog Building	GF		2,500		2,500	
4. New Steam Heating Plant	SB					100,000
5. Repair of Main Building	GF	3,000			3,000	
SUMMARY:						
Total, State Bonds	SB	0	50,000	0	50,000	100,000
Total, Debt Service	SF	0	0	50,500	50,500	0
Total, General Fund	GF	3,000	18,250	6,500	27,750	0

1/ Financing Method

STATE INDUSTRIAL SCHOOL
Miles City,
A. C. Dorr, President

o-o-o-o

Since 1930 the average number of boys committed to this institution has varied from a maximum of 160 (in 1932) to a minimum of 122 (in 1937).

1. Creamery Pasteurization Plant: A pasteurizing plant should be installed to safeguard the health of the boys and others using the milk from the institutional dairy. At present the milk is used raw, as there is no pasteurizing plant.

2. Remodel Boys' Building: It is proposed to remodel the boys' building to make it serviceable as a cottage.

3. Boys' Cottages: It is proposed to replace the old dormitory with boys' cottages. The present building, constructed in 1893, is not fire-proof, and it is unsanitary, and at the present time it is used to house 100 boys. It has been found much more satisfactory to house the boys in cottages, rather than in dormitories.

4. Cold Storage Plant: The present cold storage plant was built many years ago, and it should be replaced.

SIX-YEAR CONSTRUCTION PROGRAM

STATE OF MONTANA

State Industrial School
Miles City, Mont.
A. C. Dorr, President.

Hospitals and Institutions
Institution for Correction

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

	Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6-yr. Period	Future
1.	Creamery Pasteurizing Plant	GF		$5,000		$5,000	
	O & M	GF		135	$ 270.	405	
2.	Remodel Boys' Building	GF		10,000		10,000	
	O. & M. (none)						
3.	Boys' Cottages	SB		35,000		35,000	
	O. & M.	GF		1,310	2,620.	3,930	
	Debt Service	SF		0	35,350	35,350	
4.	Cold Storage Plant	GF			5,000	5,000	
	O. & M.	GF			12	12	
	SUMMARY:						
	Total State Bonds	SB	0	35,000	0	35,000	0
	Total Debt Service	SF	0	0	35,350	35,350	0
	Total General Fund	GF	0	16,445	7,902	24,347	0

1/ Financing methods.

VOCATIONAL SCHOOL FOR GIRLS
Helena Valley,
Mrs. Harriet Adams, Superintendent

o-o-o

The ground and buildings at this institution are generally in excellent condition. The buildings are of English architecture, quite modern, and in good repair. The grounds are composed of 400 acres of farm land, operated by male employees. The educational facilities are from the first grade up through high school, and the courses are accredited.

1. Fire Escapes: Fire escapes are proposed for all buildings that are not fire-proof. If a fire should start in the lower part of one of these buildings, the inmates on the second floor would be trapped, as all windows and doors are barred. The stairway in the center section of the building would be the only means of escape, and these open stairways would act as a chimney in a bad fire. The last legislature appropriated $800 for this purpose.

2. Water System: The present water supply and equipment for fire-fighting is inadequate. A large fire pump directly connected to a deep well supplies domestic water for the institution, as well as water for fire-fighting. A test conducted on this well showed that the pump will exhaust the water supply in less than twenty minutes. There is barely enough water to supply the normal consumption, discounting any fire protection. Therefore, an additional storage tank and water system is proposed for fire protection.

3. Rewiring Cottage No. 2: The building was wired with open wiring 20 years ago, not taking into consideration modern lamps, heating units, electric irons, and other electrical appliances which have been added during this course of time. The wires are too light,

and the insulation is entirely gone in places, thus leaving the bare wires in direct contact with the lath. The State Fire Marshal recommended that this building be rewired immediately, and accordingly, the last legislature appropriated $400.00 for this purpose.

4. Refrigeration: The present refrigeration plant is an obsolete ammonia machine, which has been in operation more than 20 years. It is not automatic, but has to be operated by hand, which causes uneven temperatures. The coils were installed in the cooler with insufficient space for circulation. The coil insulation on the walls and ceiling of the cold storage room has been plastered, which has cracked and fallen off in large patches. It is proposed to install a new modern automatic unit, which will eliminate considerable cost in operation.

5. Water Softener: The water supply is very hard, and is full of alkali. A water softener on the hot water line in the laundry is proposed, which will afford considerable saving in laundry soaps and soda. At the present time lye and strong soaps have to be used to soften the water, which are injurious to clothing and linens.

6. Male Employee's Cottage: There is no provision at the institution for the care of male employees, other than a room partitioned off from one end of the gymnasium basement. This is an unhealthy living condition, and it is difficult for the men to sleep when the gymnasium above is in use. Neither is there any garage space for the employee's cars. As the institution is located some 7 miles from the city, it is necessary that employees have cars to travel back and forth and they are entitled to garage protection, especially in severe winter weather A ten-stall garage with living quarters for male employees overhead would meet these needs.

7. Swimming Pool: A swimming pool is proposed in connection with the playground. At the present time an open plunge will serve the purpose, but later on it is proposed to enclose it.

8. Porches: The concrete porches of the main buildings are in poor condition. The concrete crumbles as if the material did not have sufficient cement, or possibly it was poured in cold weather and froze.

9. Fencing: Several miles of fence have been built within the past five years, and there are still at least five miles more that should be rebuilt.

10. Chemical Laboratory: A course in chemistry during the high school period is a prerequisite for girls expecting to take up nurses training. At present the school department does not have a chemical laboratory, but a suitable room can be finished off and equipped for this use. The school has had several opportunities to place girls in nurses training, but owing to the fact that they have had no course in chemistry, the girls have been unable to take advantage of this opportunity.

11. Superintendent's Cottage: The institution originally operated on a 12-hour basis for employees, but due to the 8-hour law, extra help has been added. When the high school course was added there were also additional teachers required. These employees are now housed in plain rooms, originally intended for the girls. It is proposed that they be moved into a space now occupied by the Superintendent, and a residence be constructed on the campus for the Superintendent.

SIX-YEAR CONSTRUCTION PROGRAM

STATE OF MONTANA

Vocation School for Girls,
Helena Valley, Mont.
Harriett Adams, Superintendent.

Hospitals and Institutions
Institutions for Correction.

Estimated Capital Expenditures Effect on Maintenance and Operating Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6-yr. Period	Future
1. Fire Escapes	GF	$ 800.00	$2,700.00		$3,500.00	
2. Water System	GF		7,500.00		7,500.00	
O. & M.	GF		50.00	100.00	150.00	
3. Re-wiring Cottage #2	GF	400.00			400.00	
4. Refrigeration	GF		1,000.00		1,000.00	
O. & M. (Saving)	GF		- 120.00	-240.00	-360.00	
5. Water Softeners	GF		1,000.00		1,000.00	
O. & M.	GF		-120.00	-240.00	-360.00	
6. Male Employees' Cottage	GF					8,000.00
7. Swimming Pool	GF					5,000.00
8. Porches	GF					600.00
9. Fencing	GF					2,500.00
10. Chemical Laboratory	GF					5,000.00
11. Superintendent's Cottage	GF					7,500.00
SUMMARY.						
Total General Fund	GF	$1,200.00	$12,010.00	-380.00	$12,830.00	$28,600.00

1/ Financing Methods.

MONTANA STATE PRISON
Deer Lodge,
Theo R. Bergstrom, Warden

1. Hospital and Garment Factory: The hospital is located adjacent to the band room and the auto license factory, both of which are always noisy during the day. The garment factory is about one-third as large as it should be. It is proposed to expand the plate factory into the present band room and move the band room into the space now occupied by the hospital.

2. Guard's Quarters: At present some of the guards live in an old building, which is a fire trap, and is unsanitary and very crowded. Others live in private quarters in the city. All the guards, especially those who are single, should be housed at the prison where they may be reached quickly in case of emergency. Under the present conditions, should an emergency arise, there would be no one available outside the walls, close to the prison.

3. Prison Farm and Dormitory: It is proposed to purchase a farm and erect a building to serve as an intermediate reformatory. Young men, between the ages of 18 and 25, could be placed on this farm and kept away from the older, hardened criminals. A good day's work, regular hours, good food, etc., would undoubtedly save many of the young men from continuing their wayward methods after being released. Such a farm would also provide an opportunity to raise beef and other commodities for the prison, which at the present time must be purchased.

4. Cell House No.2 : The old cell house was built in 1894, and the facilities are very antiquated. The criminals in Montana are no different from those in other states, and the best equipment is none too good when dealing with this type of humanity. The roof of the present building is of tin; the cell-locking system is out of date; the bucket system is used, and the building is unsanitary.

Montana State Prison,
Deer Lodge, Mont.
Theo. R. Bergstrom, Warden

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Hospitals and Institutions
Institutions for Correction

Estimated Capital Expenditures Effect on Maintenance and Operating Cost

	Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6-yr. Period	Future
1.	Hospital & Garment Factory	GF		$30,000.		$30,000.	
2.	Guards' Quarters	SB		25,000.		25,000.	
	O. & M.	GF			600.	600.	
	Debt Service	SF			25,500.	25,500.	
3.	Prison Farm & Dormitory	SB					$100,000
4.	Cell House No. 2	SB					90,000.
	Summary:						
	Total State Bonds	SB	0	25,000.	0	25,000	190,000
	Total Debt Service	SF	0	0	25,500	25,500	0
	Total General Fund	GF	0	30,000	600.	30,600	0

1/ Financing Methods.

SECTION 6.

GREATER UNIVERSITY OF MONTANA,

MONTANA STATE UNIVERSITY,
Missoula,

MONTANA STATE COLLEGE,
Bozeman,

MONTANA SCHOOL OF MINES,
Butte,

STATE NORMAL COLLEGE,
Dillon,

EASTERN MONTANA STATE NORMAL,
Billings,

NORTHERN MONTANA COLLEGE,
Havre,

GREATER UNIVERSITY OF MONTANA
Helena,
Dorothy Green,
Acting Executive Secretary
o-o-o

The Greater University of Montana consists of 6 units. Supervision is vested in the State Board of Education, with a local executive board for each unit. An executive secretary for all 6 units has an office in the state capitol building in Helena, The effort has been to prevent duplication in more advanced courses among the 6 units, and yet offer a complete program to Montana students. The 6 units of the Greater University, with major courses offered, are as follows: -

1. University at Missoula: Established by the state legislature in 1893. Major courses are; law, pharmacy, arts, social sciences, forestry, journalism, music, and business administration.

2. State College, Bozeman: Established by the state legislature in 1893. Major courses are; agriculture, engineering, household-industrial arts, science.

3. School of Mines, Butte: Established by the state legislature in 1893. Major courses are; mining, metallurgy, geological engineering.

4. State Normal, Dillon: Established by the state legislature in 1893. Major courses; teacher's training.

5. Eastern Montana State Normal, Billings: Established by the state legislature in 1927. Major courses; teacher's training.

6. Northern Montana College, Havre: Established in 1929. Major courses are; Liberal Arts and professional training.

A summary of the proposed six-year construction program for units of the Greater University is contained on the succeeding page. This is followed by a historical summary of financial operations since 1931. The cash balance in the sum of $311,864, shown at the end of years 1939-1940, is earmarked for educational activities, and for construction under way. Therefore, these funds do not indicate available surplus for additions and improvements to buildings and facilities during the future six-year period.

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Summary

Greater University of Montana

Estimated Expenditures with Effect on Operation & Maintenance Costs

Units	1/	Biennium 1941-43		Biennium 1943-45		Biennium 1945-47		Total for 6-yr.Period
		Est. Cost	O & M	Est.Cost	O & M	Est.Cost	O & M	
		$	$	$	$	$	$	
Montana State University	GF	---	---	5,500	---	10,000	7,740	$23,240
" " "	SB	---	---	30,000	---	---	---	$30,000
Montana State College	GF	2,500	---	7,500	3,000	7,500	7,500	28,000
" " "	SB	---	---	---	---	190,000		190,000
" " "	OF	---	---	225,000	---	---	---	225,000
Montana School of Mines	GF	---	2,200	13,000	3,300	10,000	4,400	32,900
" " "	SB	---	---	---	---	50,000	---	50,000
" " "	OF	50,000	---	50,000	---	50,000	---	150,000
State Normal College	GF	---	---	8,700	---	10,000	---	18,700
Eastern Mont.Normal	GF	---	---	5,000	5,000	---	5,000	15,000
Northern Montana College	GF	---	---	---	---	6,000	200	6,200
" " "	SF	7,000	---	---	---	---	---	7,000
Totals		$ 59,500	$2,200	$344,700	$11,300	$333,500	$24,840	$776,040

Summary								
General Fund	GF	2,500	2,200	39,700	11,300	43,500	24,840	124,040
State Bonds	SB	--	---	30,000	---	240,000	---	270,000
Other Funds	OF	50,000	---	275,000	---	50,000	---	375,000
Special Funds	SF	7,000	---	---	---	----	---	7,000

FINANCIAL STATISTICS
STATE OF MONTANA

Revenues and Expenditures — Greater University of Montana

REVENUES:	1931-33	1933-35	1935-37	1937-39	1939-40
Appropriations "U" Funds	$2,208,962	$2,394,554	$1,538,600	$1,628,867	$ 847,075
Earnings & Collections	547,828	578,832	733,222	758,693	380,411
Land Grant Funds	262,722	253,799	235,508	212,274	116,852
Federal Grants Fund	462,766	464,428	669,379	704,622	355,875
Gifts, Trusts, Other Funds	14,709	58,203	82,351	117,027	38,826
Local Self-Supporting Funds	37,764	16,651	388	14	
Dormitory Funds	301,166	263,011	412,577	439,163	233,522
Construction Funds		930,948	723,635	987,312	75,080
Interest & Sinking Funds		27,070	136,963	310,343	126,672
Balance from previous P'D	47,084	59,890	218,353	139,418	540,615
Experiment Stations*	-412,306	-389,528	-411,912	-427,903	-224,322
Millage Reversion	-101,070	- 6,221	- 4,396	- 4,574	
Total	$3,369,625	$3,651,637	$4,344,668	$4,865,256	$2,490,606
EXPENDITURES:					
"U" Executive Office	34,290	12,000	12,972	12,960	6,642
University	1,140,831	910,142	1,058,019	1,151,610	577,967
State Agri. College	772,913	642,265	764,351	809,426	412,474
Extension Service Ag.College	322,030	282,569	439,023	449,628	220,500
School of Mines	242,152	203,785	247,501	261,705	129,843
State Normal School	352,916	262,972	255,062	241,326	108,488
Eastern Mont. Normal	183,215	142,407	136,555	134,320	68,530
Northern Mont. Normal	115,572	99,590	143,532	167,365	89,446
Debt Retired			116,671	300,591	88,322
Total O. & M. (Gr."U") - - -	3,163,919	2,555,730	3,173,686	3,528,931	1,702,212
Capital Exp. (All Units) - -	145,816	877,554	1,031,564	795,710	476,530
Total, Gr. University - - -	$ 3,309,735	$ 3,433,284	$ 4,205,250	$ 4,324,641	$ 2,178,742
Balance or Deficit - - - - -	$ 59,890	$ 218,353	$ 139,418	$ 540,615	$ 311,864

* Conservation and Development

MONTANA STATE UNIVERSITY
Missoula,
George F. Simmons, President

o-o-o

1. Remodel old Science Hall: The Science Hall was one of the first buildings constructed on the university campus. It was last used by the Chemistry and Pharmacy departments, but the building has been vacated and is not useable by any department in its present condition. The building should be renovated and made suitable for class work.

2. Remodel and Equip Residence No.2: This is an old residence, now used for a music practice house. Eventually, when item no.9, (music building) is built, this residence no.2 will be abandoned by the Music department and can then be made available for home economics, which department is now renting a residence off the campus for $75.00 per month. Before any funds are spent remodeling the old residence, serious consideration should be given to demolishing it and building a new, small residence more suitable to the needs. The present old residence has depreciated until it has very little value.

3. Law School Building: The Law Library is located in crowded quarters on the first floor of the law building. It is the intention to extend the book stacks down through the first floor to the basement. Classes in modern languages are now using this space in the basement. These rooms are poorly lighted, ventilated and heated. When item no.4(Class Room Building) is constructed, modern languages and the history department will vacate space they now use in the Law School building which will provide adequate book space for the Law School Library.

4. New Class Room Building: A new class room building is proposed to house the English, History and Modern languages departments. These departments are now scattered throughout the Law building, the Craig Hall, the Journalism building and the Library building. A new class room building would consolidate these departments and relieve congestion in the other buildings.

5. Heating, Electric and Water Systems: An additional boiler is needed in the heating plant. The steam distribution system, which is 20 years old, is too small to care for the present buildings, let alone any additional construction. The electrical distribution system has reached its capacity and should be enlarged. New and additional water mains are needed for fire protection. All of these general distribution systems should be rehabilitated and enlarged.

6. University Hall: The administrative offices are overcrowded in inadequate quarters. If the courses in music, geology and psychology could be moved from this building it would provide adequate space for the administrative offices. Some attempt should be made to at least partially fireproof this building where so many valuable records are kept.

7. R.O.T.C Building: The ROTC Unit was given a very low rating by the Army last year because of inadequate quarters and insecure storage space for arms and equipment. This department should have a small building with a fireproof arsenal, and an indoor rifle range. The present trend of preparedness would dictate that such arrangements should be made in the very near future.

8. Library Building: The library stacks are now completely filled. Ad-

ditional stacks and reading rooms could be installed in the space vacated by the department of English and History, if a new class room building were built. The lighting in the library building is entirely inadequate, and the ventilation is poor for such crowded rooms. This condition is particularly noticeable in the summer months.

9. Music Building: The Music department is now housed in University Hall, Music Practice House, Simpkins Hall, and the Student Union Building. It is very difficult to teach with the department spread out in this manner. A Music building would relieve University Hall for other uses and would provide for the department of Economics, with a home living center in the present music practice house, and would also relieve rooms in the Student Union building.

10. Forestry Building: The trends in forestry and lumber uses are changing in the whole forestry and lumbering field, which makes it necessary to show new methods in the education of students and this will require new types of laboratories. The present Forestry building is quite adequate for other departments, and it would be much cheaper to build an entirely new building for forestry than to attempt to remodel the present building.

11. Renovate present Forestry Building: The present forestry building can be remodeled to satisfactorily house the departments of Home Economics and Geology.

12. Women's Gymnasium: The women's physical education department is very inadequately housed in a small frame building. The women should have a new gymnasium, equipped with showers, lockers and athletic equipment.

13. Men's Gymnasium: The present men's gymnasium is not adequate for conference basketball games. These contests have been continually losing money because the gymnasium is not large enough to seat sufficient spectators to pay for the games. An addition to the south end, which would be a small field house, is proposed. This would provide an adequate basketball floor, handball courts, badminton courts, and other recreational facilities for students not actually on competing teams.

14. Campus roads, walks, drains, Landscaping, etc.: It will require about $35,000.00 to recondition campus utilities, such as roads, new walks, installing drains, and landscaping.

Montana State University
Missoula,
Geo. F. Simmons, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Unit of the Greater University of Montana

Estimated Capital Expenditures Effect on Maintenance and Operation Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
1.Remodel old Science Hall	SB	$	$30,000	$	$30,000	$
O. & M.	GF			5,740	5,740	
Debt Service	SF			30,600	30,600	
2. Remodel and Equip Residence #2.	GF		5,500		5,500	
O. & M.	GF			1,850	1,850	
3. Law School Building	GF			10,000	10,000	
O. & M.	GF			150	150	
4. Class Room Building	SB					300,000
5. Heating, Electric & Water Systems	SB					215,000
6. University Hall	SB					20,000
7. ROTC Building	SB					75,000
8. Library Building	SB					65,000
9. Music Building	SB					250,000
10. Forestry Building	SB					250,000
11. Renovate old Forestry Building	SB					35,000
12. Womens' Gymnasium	SB					265,000
13. Mens' Gymnasium	SB					150,000
14. Campus, roads, walks,	SB					35,000
SUMMARY:						
Total, State Bonds	SB	0	30,000		30,000	1,660, 000
Total, Debt Service	SF			30,600	30,600	
Total, General Fund	GF		5,500	17,740	23,240	

1/ Financing Methods

MONTANA STATE COLLEGE
Bozeman,
A. L. Strand, President

o-o-o

1. Fire Escapes on Chemistry Building: The main lecture room in the chemical building with a seating capacity of about 250, is located in the attic. The room is completely enclosed, without doors or windows to the outside. The only exit is through a single door about three feet wide, located in the narrow passage behind a blackboard partition, and this single door discharges to the top floor of a stair well, down through the center of the Chemistry building. A fire or chemical explosion during a lecture hour would have appalling results. A fire escape through the roof and to the ground below, is urgently needed for safety and protection of human life.

2. Agricultural Building- 2nd Unit: The present agricultural building is extremely crowded. The college has not been able to make use of $2,000 worth of equipment contributed by the Montana Wool Growers' Association because of lack of laboratory space.

3 & 4. Chemistry Building and Laboratory: The present chemistry building comprises about two-thirds of the building that was erected in 1918 as it was planned at that time. The other one-third has never been completed. In 1918, this institution had approximately 350 students altogether. Now, with an enrollment of over four times that many, the institution is still trying to get along with the same space for chemistry. The attic, for the past three years has been used as the main lecture room, and is not a proper place for housing the students. Completion of the present building and the addition of a laboratory building

behind it will be the very minimum of additional space needed for the department.

5. Library: The valuable library of over 60,000 volumes is at present housed in a non-fireproof building, and does not furnish adequate space for library facilities. Even if space were available, the addition of more weight on the floors is inadvisable, for the building will not stand any more loading. There is need for a central library building to bring together the present general library, the Experiment Station library, and various departmental libraries that have been scattered over the campus in the interest of space and safety.

6. Addition to Engineering Shops: On account of the constant growth in the number of engineering students, it is quite imperative that an addition to the shops be constructed. The present building is old, cheaply constructed of wood, and is a serious fire hazard to the main administration building which is close to it. Furthermore, this old building should be removed from the central part of the campus.

7. Mathematics-Physics Building: The mathematics department is housed in an old stone and brick building, part of which was erected 45 years ago and the balance put up as a temporary structure in 1915. It is located at the end of the present foundry and pattern shop building, which as indicated above, should be demolished, and the material used for some other structure. The physics department is located in the main building, and is one of the poorest housed departments in the institution. An old corridor makes up the present lecture room. There is no available space for physics laboratories. A new build-

ing to be used jointly by the departments of mathematics and physics is one of the essential needs of the institution.

8. Service Shop: A new service shop of rather cheap but fireproof construction is needed to replace the frame structure now located in the middle of the campus and rather close to the main building. The present wood building is 40 years old. It is proposed to remove the service shop to a less conspicuous location on the campus.

9. Dairy Industries: A dairy industry building is proposed in order to get the dairy laboratory out of the present agricultural building to make more space.

10. Additional Boiler and Distribution System: Additional heating capacity will be needed to care for additional buildings.

11,12,13,& 14. Dormitories,Bleachers,Tennis Courts,Arsenals:

There are no men's dormitories nor cooperative dormitories for both men and women. Bleachers are needed for the athletic field, and permanent tennis courts are proposed. The present armory facilities established by the federal government in 1917, are entirely inadequate. A new armory and arsenal is needed to house the ROTC Units.

BOND ISSUE: The 27th legislative session, 1941, passed an act (Chap.119) authorizing a referendum for a bond issue of $690,000 "for the construction, repair, remodeling and equipping of necessary buildings at Montana State College,at Bozeman." Ratification of the act will be submitted to the voters at the general election to be held in November, 1942. The issue proposed will be general state bonds secured, as to principal and interest,by an ad valorem tax of $\frac{1}{4}$ mill on all property in the state subject to taxation. Bonds are to be serial, extending not to exceed 20 years, at an interest rate not to exceed 4%. Approved, March 11, 1941.

Montana State College
Bozeman,
A. L. Strand, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Unit of the Greater University of Montana

Estimated Capital Expenditures Effect on Maintenance and Operation Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total Six-Year Period	Future
1. Fire Escapes, Chemistry Bldg.	GF	$	$ 2,500	$	$ 2,500	$
2. Agricultural Bldg., 2nd Unit	OF		225,000		225,000	
O. & M.	GF		3,000	6,000	9,000	
3. Chemistry Laboratory Bldg.	SB			65,000	65,000	
O. & M.	GF			1,000	1,000	
4. Chemistry Laboratory	SB			125,000	125,000	
O. & M.	GF			500	500	
5. Library	SB					200,000
6. Addition to Engineering Shops	SB					65,000
7. Mathematics-Physics Bldg.	SB					190,000
8. Service Shop	SB					30,000
9. Dairy Industries	SB					75,000
10. Additional Boiler & Dist. System	SB					50,000
11. Mens' Dormitory	RO					200,000
12. Cooperative Dormitory	RO					200,000
13. Stadium Bleachers	GF		7,500	7,500	15,000	
14. Tennis Courts	OF					13,000
15. Arsenal and Armory	OF					200,000
SUMMARY:						
Total, State Bonds	SB			190,000	190,000	610,000
Total, Other Funds	OF		225,000		225,000	213,000
Total, General Fund	GF	0	13,000	15,000	28,000	
Total, Revenue Obligation	RO					400,000

1/ Financing Methods.

MONTANA SCHOOL OF MINES
Butte,
Francis A. Thomson, President

o-o-o-o

1. Landscaping, Grading and Oiling Roads: The program of campus improvements, including planting, landscaping, grading and oiling of roads is being done under a WPA project. In order to complete the project it will require a sponsorship of $50,000 for each of the next three bienniums.

2. Acid Waste Drain Stacks: The present plumbing system of the Metallurgy building, which houses the chemical laboratory, should be replaced with acid-proof waste pipes and acid-proof sinks in all of the laboratories. Under present conditions the replacement of these facilities every few years is expensive.

3. Fire Escapes: A fire escape installation from the third floor of the Administration building to the ground, including a second story entry, is essential to safeguard life in event of a fire. There are no fire escapes in this building.

4. Administration Building: This building was completed in 1900. It has a cutstone foundation up to the first floor. Above this, all exterior and interior walls are brick. Floors are supported by brick arches carried on the walls. Cracks appear in the walls and partitions, which are positive indications of relative movement. There is some question as to whether these cracks are caused by foundation settlement or unbalanced thrust from the brick arches supporting the floors. It is proposed to replace the foundation with cut granite. The electric wiring in the building is carried through hollow ceilings, which causes a serious fire hazard. The building should be rewired according to specifications of the Board of

Fire Underwriters.

5. Rewire Engineering Building: The engineering building, which houses the drafting and designing rooms, is inadequately lighted. The building needs new wiring and new fixtures for the drafting rooms.

6. Addition to Residence Hall: The residence hall, when completed in 1934, was left with considerable unfinished space on the basement floor of both wings. This project would include the installation of wiring, plumbing, floors, partitions, extension of heating system and furnishings for the north and south wings. This would accommodate twenty additional students and add to the capacity of the building, which is now crowded. It will be a self-liquidating project.

7. Shop Buildings: The college is badly in need of proper space for a carpenter shop, machine shop, warehouse and garage for campus trucks. This service is inadequately taken care of at the present time in a frame building which has survived since the first world war. The barracks is a fire hazard and should be replaced by an inexpensive,but substantial concrete and brick structure for the shop building.

8. Campus Lights: Extensions of the present campus lighting system is needed to include the south and west sides of the Residence Hall.

Montana School of Mines,
Butte, Montana
Francis A. Thomson, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Unit of the Greater
University of Montana

Estimated Capital Expenditures Effect on Maintenance and Operating Cost

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6-yr. Period	Future
1- Landscaping, grading, oil rds.	OF	$50,000	$50,000	$50,000	$150,000	
O. & M.	GF	2,200	3,300	4,400	9,900	
2- Acid Waste Drain Stacks	GF		5,000	10,000	15,000	
3- Fire Escapes	GF		3,000	---	3,000	
4- Administration Building	SB			50,000	50,000	
5- Rewire Engineering Building	GF		5,000		5,000	
6- Addition to Res. Hall	OF					$50,000
7- Shop Building	SB					30,000
8- Campus Lights	SF					4,000
SUMMARY:						
Total Other Funds	OF	$50,000	$50,000	$50,000	$150,000	$50,000
Total State Bonds	SB	0	0	50,000	50,000	30,000
Total General Fund	GF	2,200	16,300	14,400	32,900	0

1/ Financing Methods

STATE NORMAL COLLEGE
Dillon,
Sheldon H. Davis, President

o-o-o

This college is the oldest in Montana of the state normal schools. The buildings and grounds are well maintained, and it is the oldest of the structures, those erected more than thirty years ago, that need major repairs.

1. Floor in Residence Hall: The wood floor installed in the Residence Hall in 1921, has never been quite satisfactory. The floor has a tendency to swell and buckle, causing an uneven surface. A concrete floor is proposed.

2. Irrigation System: At the present time irrigating lawns is accomplished by extending movable pipes over the surface of the ground from various vents on the campus. It is proposed to install a sprinkler system, well and pump. This will provide a more adequate water supply and at the same time eliminate much labor.

3. Infirmary: The need of a detention room for students inflicted by contagious epidemics is very great and sometimes acute. During most of the past twenty year the institution has at some time during each year rented small houses for this purpose, as there are no other facilities available for isolation cases. This infirmary could often be used for cases which are not acute or contagious, and it would also provide an office and facilities for the college nurse.

4. Rewire Existing Buildings: This does not apply to buildings constructed since 1907 or 1908. The wiring in the old main building must have been antiquated when the work was done. It has been improved somewhat by extensive patchwork, but it is far from meeting modern standards of safety. Better wiring would save money, both in lowered insurance costs and in the conservation of electricity.

5. Athletic Field and Landscaping: The Normal College does not have an athletic field. A tract of land which is conveniently located for this purpose is available and can be purchased.

6. Addition at Rear Entrance: A glassed-in storm enclosure is proposed at the rear entrance to the main building. The space would provide a lounging area during sunny days and protect the interior of the building against the elements during storms.

7. Complete Basement for Gymnasium: There is a large amount of basement space in the gymnasium available for numerous uses if a little more excavation could be done and the walls and ceilings finished.

8. Industrial Arts Shop: The demand for industrial arts teachers is considerable. The Normal College has excellent shop equipment of all the lighter kinds of tools and appliances, which at present are housed in the primary building of the training school belonging to the Dillon District.

9. President's Residence: It is desirable to construct a residence on the campus for the president

of the institution. The building should be large enough to accommodate special functions of the school. This arrangement will also bring the president in closer contact with the institution twenty-four hours of the day, and he will be easily available in case of an emergency.

10. Coal-handling Equipment and Improvement of Heating Plant:

The heating plant has never been completed beyond the installation of very ordinary stokers. Fuel is piled in the yard and stoker coal is fed by the wheelbarrow and hand-shoveling method.

11. Roof Repair and Extension to Swimming Pool Building:

It is desired to insulate the roof over the plunge and build an addition to the building of light construction to provide needed space and storage rooms. The single layer roof needs insulation to prevent sweating from the moisture of the plunge. Under present conditions it is difficult to provide proper ventilation, and there have been times when great quantities of water drop from condensation on the ceiling to the gymnasium floor. An expensive type of covering has been temporarily placed on the roof to prevent this trouble, but it is not permanent and will continue to be an expense until the trouble is remedied.

12. Library Stacks: When the Library building was originally constructed in 1924, provision was made to house between 20,000 and 30,000 books on the stacks of the main floor, which was sufficient space at that time. Two rooms on the floor below were intended to be ultimately used for additional stacks whenever the library required expansion. In the meantime, these two rooms were partitioned off and used for other purposes. The time has now arrived when the building should be renovated and stacks installed for library use as originally intended.

State Normal College
Dillon
Sheldon E. Davis, President

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Unit of the Greater
University of Montana.

Estimated Capital Expenditures Effect on Maintenance and Operation Costs.

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6-yr. Period	Future
1- Floor in Residence Hall	GF	$	$ 2,700	$	$ 2,700	
2- Irrigation System	GF		6,000		6,000	
3- Infirmary	GF			10,000	10,000	
4. Rewire Existing Buildings	GF					$ 6,000
5- Athletic Field, Landscape	GF					10,000
6- Addition at Rear Entrance	GF					15,000
7- Complete basement for Gym	GF					10,000
8- Industrial Arts Shop	SB					50,000
9- President's Residence	GF					15,000
10- Coal Handling Equipment and Improve heating Plant	GF					10,300
11- Gymnasium, Repair, Extension to Swimming Pool Bldg.	GF					12,000
12- Library stacks to accommodate increased books	GF					3,000
SUMMARY:						
Total State Bonds	SB	0	0	0	0	50,000
Total General Fund	GF	0	8,700	10,000	18,700	81,300

1/ Financing Methods.

EASTERN MONTANA STATE NORMAL
Billings,
L. B. McMullen, President

o-o-o

The Eastern Montana State Normal is housed in a single building constructed as a PWA project, but the college enrollment has steadily increased until more space is now required to provide ample teaching facilities. This institution was located at Billings with the idea of meeting the educational needs of eastern Montana.

During the first school year there were 206 students in the regular courses, excluding the summer session and the extension courses, while the school year of 1939-1940 shows a comparable registration of 353 students. Through a WPA project with Yellowstone County cooperating, extensive work is being accomplished in landscaping the grounds, oiling roads, and building a stadium.

1. Finish Basement Rooms: The basement of the present building provides space for five additional class rooms, but these rooms have never been completely finished, and are badly needed for Home Economics and Manual Training.

2 and 3. Dormitories: The dormitories are proposed to be built with the proceeds from the sale of revenue obligation bonds, secured by rentals and student fees.

4. Swimming Pool: At the present time there are no provisions on the campus for swimming. It is proposed to construct a plunge to be used in conjunction with athletic activities.

Eastern Montana State Normal
Billings, Mont.
L. B. McMullen, President.

SIX-YEAR CONSTRUCTION PROGRAM
STATE OF MONTANA

Unit of the Greater
University of Montana

Estimated Capital Expenditures Effect on Maintenance and Operating Costs.

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6-yr. Period	Future
1- Finishing Basement Rooms	GF		$ 5,000	$	$ 5,000	
O. & M.	GF		5,000	5,000	10,000	
2- Boys' Dormitory	RO					$50,000
O. & M. (none)						
3- Girls' Dormitory	RO					80,000
4- Swimming Pool	SB					40,000
5- Library & Museum Building	SB					145,000
SUMMARY:						
Total Revenue Obligation Bonds	RO	0	0	0	0	130,000
Total State Bonds	SB	0	0	0	0	185,000
Total General Fund	GF	0	10,000	5,000	15,000	0

1/ Financing Methods

NORTHERN MONTANA COLLEGE
Havre,
G. H. Vande Bogart, President

o-o-o

This college was established in 1928 when the city of Havre gave sixty acres of ground just inside the southern limits of the city to be used for the institution. It is an ideal site, somewhat elevated above the city.

1. Athletic Field for Women: Under a WPA project, this field has been excavated and graded, with the exception of some 3,000 cubic yards. As soon as this work is completed, the necessary units can be provided for instruction in physical education and for the recreation of the large group of women students attending the college. The cost necessary for completion of the work will be small because the greater part has been completed.

2. Administration Building: When the college started in 1928, an old high school building was rented until a suitable new building could be constructed. The college continues to hold school in this rented building and the enrollment has grown until they also rent part of a gymnasium and space in the basement of a nearby church. Conditions are bad and crowded. Enrollment increased 28 percent in 1939-1940, over the previous year, and has further increased 10 percent this year. Construction of this building would enable the college to centralize its various scattered departments.

3. Residence Hall for Men: It is significant that the enrollment of men in the college is increasing from year to year. At the present time there is no provision whatever for the housing of men students except in approved private homes in Havre. Considering the enrollment of men, and the number of rooms available, the saturation point has been practically reached, unless other facilities are provided. This building would be self-liquidating, and the cost of maintenance and operation would be paid from the income of the building.

4. Men's Athletic Field: This project has been partially completed through the cooperation of WPA. With the growing realization of the importance of planned and directed physical exercise and recreation for college students, and with the increasing emphasis upon providing facilities for the building of health, it is important that attention be given to the completion of the field.

5. Greek Theater: This is a desirable development on the campus from the standpoint not only of the college, but of the community and of northern Montana. The excavating is completed. The large open-air stage was also completed under a federal project six years ago. This is a center for certain college and community activities. When completed, it will have a seating capacity of approximately 7,000. Such a center, which can be prepared at relatively small cost, would serve as a cultural and recreational center.

6. Physical Education Building: At the present time the large student body of this college has no provision for systematic indoor exercise and recreation, including health activity

programs, except for limited part-time use of the gymnasium of the local high school. This is the only unit of the Greater University lacking such provisions.

7. Library: With the increase in the student enrollment it is essential that adequate opportunity for study be made available where there is access to necessary reference materials. There will be increasing demand for research and specialized study. A library building designed to meet the needs of modern college work should be a part of a long-time plan for the institution.

8. President's House: It is probable that the completion of certain units on the campus will eventually include a residence for the president. In the interest of certain advantages made possible by such an arrangement, it is the policy of colleges and universities generally, to establish a residence on the campus. It is not recommended that this be considered at the present time, except as an ultimate development after other urgent facilities have been supplied.

9. Storm Water Sewers: The topography of the campus is such that as further improvements are made it will be necessary to provide additional drainage facilities in order to protect buildings on the campus. In this region where flood conditions are sometimes experienced, there have been two or three instances of serious damage due to water in certain buildings.

BOND ISSUE

The 27th Legislative Session, 1941, passed an act (Chapter 120), authorizing a referendum for a bond issue of $350,000 "for the construct-

ion and equipment of necessary buildings at Northern Montana College at Havre". Ratification of the act will be submitted to the voters at the general election to be held in November, 1942. The issue proposed will be general state bonds secured as to principal and interest by an ad valorem tax of one-fourth of one mill on all property in the state subject to taxation. Bonds are to be serial, extending not to exceed twenty years, at an interest rate not to exceed four per cent. Approved March 11, 1941.

The 27th Legislative Session, 1941, passed a bill (H.B.#393), appropriating from the University Millage Fund, $7,000, "For the necessary equipment, installation and expense of installing equipment in and remodeling the buildings."

Also, $10,000 "For necessary expense of equipment, salaries of instructors, and expenses in connection with the installation of an Industrial Arts Course".

Northern Montana College
Havre
G. H. Vande Bogart, President.

SIX-YEAR CONSTRUCTION PROGRAM

STATE OF MONTANA

UNIT of the Greater
University of Montana

Estimated Capital Expenditures Effect on Maintenance and Operation Costs

Description of Project	1/	Biennium July 1941 June 1943	Biennium July 1943 June 1945	Biennium July 1945 June 1947	Total 6 yr. Period	Future
1- Womens' Athletic Field	GF	$	$	$ 6,000	$ 6,000	
O. & M.	GF			200	200	
2- Administration Building	SB					$500,000
3- Mens' Dormitory	SB					200,000
4- Mens' Athletic Field	SB					75,000
5- Greek Theater	GF					15,000
6- Physical Education Bldg	SB					250,000
7- Library	SB					200,000
8- President's House	SB					12,000
9- Storm Water Sewers	SB					25,000
10-Ventilation & Remodel Bldgs.	SF	7,000			7,000	
SUMMARY:						
Total State Bonds	SB	0	0	0	0	1,262,000
Total General Fund	GF	0	0	6,200	6,200	15,000
Total,Special Fund	SF	7,000	0	0	7,000	0

1/ Financing Methods

SECTION 7.

MONTANA HIGHWAY DEPARTMENT,

Helena, Montana.

SIX-YEAR CONSTRUCTION PROGRAM

Montana Highway Department
D.A.McKinnon, Chief Engineer

Highways

STATE OF MONTANA

Estimated Capital Expenditures Effect on Maintenance and Operation

Description of Project	1/	July 1941 Biennium June 1943	July1943 Biennium June 1945	July 1945 Biennium June 1947	Total Six-Year	Future
FUNDS FROM PRESENT INCOME:		$	$	$	$	$
1. Highway Construction						
Federal Aid Projects	SF	9,550,000	8,970,000	8,970,000	27,490,000	
Forest Road Projects	OF	1,248,000	1,104,000	1,104,000	3,456,000	
Federal Land Projects	OF	187,000	160,000	160,000	507,000	
Betterments	SF	1,300,000	1,300,000	1,300,000	3,900,000	
Surveys and Plans	SF	280,000	280,000	280,000	840,000	
2. Land Purchases						
Right/Way	SF	425.000	415,000	435,000	1,275,000	
3. Buildings						
Maintenance Bldgs.	SF	90,000	60,000	60,000	210,000	
Sub-totals - - - -		13,080,000	12,289,000	12,309,000	37,678,000	
ADDITIONAL FUNDS NEEDED:						
1. Highway Construction						
State Projects		8,000,000	8,000,000	8,000,000	24,000,000	
Surveys		250,000	250,000	250,000	750,000	
2. Land Purchases						
Right/Way		410,000	410,000	410,000	1,230,000	
Sub-totals - - -		8,660,000	8,660,000	8,660,000	25,980,000	
Total - - - - -		21,740,000	20,949,000	20,969,000	63,658,000	
Maintenance - -		6,920,000	7,711,000	7,691,000	22,322,000	
GRAND TOTAL - -		$28,660,000	$28,660,000	28,660,000	$85,980,000	

1/ Method of Financing

REVENUES, EXPENDITURES, REQUIREMENTS.

FINANCIAL STATISTICS
STATE OF MONTANA
MONTANA HIGHWAY DEPARTMENT

	Historical Period				Future Period		
REVENUE - SOURCE	1931-33	1933-35	1935-37	1937-39	1941-43	1943-45	1945-47
Gas Tax	$8,347,138	$11,138,169	$10,303,711	$12,528,675	$	$	$
Federal Funds	9,459,397	12,258,409	11,414,606	5,025,175			
Net Transfers	- 74,361	-2,734,830	- 817,390	-1,733,169			
Claims, etc.	73,730	664	133,094	220,480			
Total Revenues:-	$17,805,904	$20,662,392	$21,033,521	$16,541,161	$20,000,000	$20,000,000	$20,000,000
EXPENDITURES AND REQUIREMENTS:							
Gas Tax Refunds	1,505,292	1,379,906	16,345,546	20,267,740			
Administration	346,557	381,356	463,748	486,827			
Supervision	212,993	155,767	166,181	229,211			
Right/Way	636,723	464,007	516,810	333,607			
Equipment	479,465	579,669	550,232	549,576			
Maintenance	2,359,270	2,795,198	3,392,300	3,673,865			
Construction	11,874,683	14,309,623	14,646,439	7,382,437			
Accrued Cost and Refunds		195,298	416,190	642,231			
Total Exp. & Req.	$17,414,983	$20,260,824	$21,786,446	$15,326,494	$28,660,000	$28,660,000	$28,660,000
Additional Revenue needed:					8,660,000	8,660,000	8,660,000
Federal Aid Projects					9,550,000	8,970,000	8,970,000
Forest Roads					1,248,000	1,104,000	1,104,000
Federal Land Projects					187,000	160,000	160,000
Betterments					1,300,000	1,300,000	1,300,000
Surveys					280,000	280,000	280,000
Right/Way					425,000	415,000	435,000
Buildings					90,000	60,000	60,000
State Projects					8,250,000	8,250,000	8,250,000
Additional Right/Way					410,000	410,000	410,000
Maintenance, etc.					6,920,000	7,711,000	7,691,000
Total - -					$28,660,000	$28,660,000	$28,660,000

NOTE: Estimates for biennium 1939-1941 not submitted by Highway Department

SECTION 3.

STATE WATER CONSERVATION BOARD,

Helena, Montana.

STATE WATER CONSERVATION BOARD
Helena, Montana
E. B. Donohue, Chief Engineer.

- - - - -

The State Water Conservation Board was created by Chapter 35, Extraordinary Session, 23rd Legislative Assembly, 1933.

The purpose was to set up a legally constituted body authorized to negotiate federal aid, issue bonds, collect moneys, sign contracts, etc., in connection with water conservation development within the State. When it became necessary to put men to work by creating a demand for employment, Montana was the first state to create an agency authorized to take advantage of the opportunity offered by the federal government through the Public Works Administration and other agencies.

The Board owns the projects after completion, and sells water to the users based upon the same principles as prescribed by public utilities in the sale of their commodities. Liens are not placed upon the land to guarantee payment of construction costs. Water rights accrue to the project and not to the individual tracts of land.

Because of ever changing conditions governing financing and cooperation by federal agencies, the Board has continually studied and presented not only new projects, but has found it necessary to revise early project applications to fit new requirements. By this method, the Board has been able to keep a comprehensive list of projects before all agencies able to cooperate in water conservation work. Should a reaction, such as occurred in 1929 and subsequent years, confront this nation, or in the event an armistice should quickly terminate our need for the present defense program, resulting in wide-spread unemployment, Montana

will be prepared to guide government expenditures toward the construction of such regenerative projects as water conservation developments. Demands for all federal funds at present for defense purposes must necessarily result in a greater burden of the share of construction costs being borne by state funds.

Through its planning activities, the Board has kept in constant touch with the long-range development relating to water and other programs being conceived throughout this section of the country, and has in cooperation with other agencies, submitted suggestions to the proper authorities for relieving the migratory farm problem in the state.

The Board has carried on since its creation, a construction program to the extent of $12,084,039. Legislative appropriations of $1,748,864 have been made to the Board's Revolving Fund. Grants in the amount of $6,015,876 have been received, and the balance of construction funds have been secured by the issuance and sale of water conservation revenue bonds to the extent of $4,138,000. These bonds are not an obligation of the State of Montana, and are secured as repayment by all of the income from the individual project for which the separate bond issues cover. The bonds bear interest at 4% per annum, and are due annually over a period of thirty to forty years. Water is sold to the individuals under the project at an amount payable annually, sufficient to retire the bonds and interest thereon and to create a reserve deemed necessary.

During the interim since 1933, the Board has built 18 major projects, through PWA loans and grants; 129 small projects in cooperation with WPA; 4 projects financed by Water Conservation Board Serial Bonds

issued in conjunction with local aid; 3 projects from the Board's Revolving Fund; and 3 projects by cooperation with the Soil Conservation Service and the CCC camps.

In addition to the projects completed, the Board has made surveys, prepared plans, estimated costs, etc., on many other meritorious projects in the state. Many of these can be put under construction within a short time, if and when it becomes necessary to reopen a public works program to absorb unemployment after the rearmament program has subsided.

Attached is a list of potential projects taken from the Board's files. It includes only those which have been surveyed, and/or projects on which there are no reports, estimates, etc., but where sufficient detail is available to make listing herein possible.

There are undoubtedly many other feasible projects in the state that are not included in the list on account of the absence of tangible data at the present time. On the other hand, some of those listed may not prove feasible for one cause or another after further investigations have been made. While the list is tentative and subject to change, the estimated capital expenditure necessary to develop these tentative projects totals $31,877,408.

STATE WATER CONSERVATION REVENUE BONDS

Series	Project	Bonds Issued	Bonds Unsold	Bonds Matured	Bonds Paid	Bond & Int. Sink. Fund with Trustee
A	Rock Creek	535,000		10,000		5,230.00
B	Conrad	87,000		7,000	11,000	2,041,69
C	Willow Creek	128,000		3,000	1,000	666.00
D	Smith River	143,000		3,000	3,000	11,554.38
E	Flint Creek	284,000		6,000		1,863.77
F	Park Branch	68,000		2,000	2,000	5,656.01
G	Livingston Ditch	22,000		1,000	1,000	1,863.26
H	Ruby River	286,000				5,276.37
J	Ackley Lake	54,000		1,000	1,000	1,771.12
K	Big Dry	50,000			26,000	
L	Tongue River	660,000				3,219.68
M	Nevada Creek	142,000				165.00
N	UpperMusselshell	427,000				
P	Columbus	31,000				2,012.54
Q	Sidney Pumping	54,000				
R	W.Fk.Bitterroot	440,000				
S	Broadwater-Missouri	495,000				
T	Middle Creek	217,000				
U	Community Gravity	6,000	1,000			300.00
V	Green Mountain	16,000	6,000			
W	Deadman's Basin	135,000	135,000			
X	BigHorn-Tullock	32,000	32,000			
TOTALS - - - - - -		$4,312,000	$174,000	$33,000	$45,000	$41,619.82

PROPOSED PROJECTS - STATE WATER CONSERVATION BOARD
Helena, Montana

Project	Storage Acre Feet	Acres	Total Cost	Cost Ac. Ft.	Remarks.
			$	$	
BEAVERHEAD COUNTY:					
Grasshopper Res.	22,000	10,000	171,383	7.79	Dam on Grasshopper creek, near mouth, to irrigate bench east of Dillon. Cost estimated in 1922 by Montana Irrigation Commission.
Big Sheep Cr. Stge.	5,000	4,380	148,612	29.72	Dam on Big Sheep creek for supplemental irrigation near Dell.
Clark Lake Storage	800	4,500	10,909	13.63	Raise level of lake for supplemental irrigation below Polaris.
Medicine Lodge Stge.	2,000	2,400	69,100	34.50	Dam on Medicine Lodge creek. Supplemental irrigation in creek valley.
Beaverhead Rock Stge.	81,110	68,000	1,120,000	13.81	Dam on Beaverhead river, midway between Dillon and Twin Bridges. Supplemental irrigation.
Mussigbrod Reservoir	550	500	5,000	9.09	Raise present dam 4' on Mussigbrod creek. Dam could be raised 20' to store 3,000 acre feet at cost of $100,000. Present reservoir stores 1,850 acre feet.
Miners Lake Storage	3,093	9,000	37,202	12.02	Dam to be 20' high. Estimated cost by private engineer in 1935.
Big Hole Res., near Glenn	298,000		7,824,000		Army engineers say 220' dam most feasible for power and irrigation. Charge part of cost to power.
BIG HORN COUNTY:					
Big Horn Canyon Res.	1,025,000		15,600,000		Total for power, silt, flood control and irrigation.
For Irrigation	122,000	61,000	2,074,000	17.00	Chargeable to irrigation only.
West Dillon Dam			2,868		Small reservoir for irrigation.
Little Young Creek	96	200	1,296	13.50	Repair existing dam for irrigation.
County-wide			25,668		Miscellaneous small stockwater & irrigation projects.
BLAINE COUNTY:					
Clear Cr. Stge.	3,200	2,500	212,727	66.48	Storage reservoir on Clear creek for supplemental irrigation of creek valley.
County-wide, 7 reservoirs			84,483		Miscellaneous small stockwater and irrigation reservoirs. WPA application.

Project	Stge. A.F.	Acres	Total Cost	Cost A. F.	Remarks
BROADWATER COUNTY:					
Improve Crow Creek		10,000	$21,732		Enlarge canal and improve along creek for supplemental irrigation.
County-wide			7,013		Misc. small stock and irrigation reservoirs.
CARBON COUNTY:					
County-wide			27,864		Misc. small stock & irrigation reservoirs W.P.A.application 7/24/36
CARTER COUNTY:					
Little Missouri St.	50,000	30,000	950,909	19.18	Storage reservoir on Little Missouri River in Wyo. Irrigate land in Wyoming & Montana.
Box Elder Cr. Stge.	3,250	2,000	67,273	20.70	Dam on Box Elder Creek. Irrigate new land.
Little Beaver Stge.	11,858	6,000	361,689	30.50	Dam on Little Beaver creek. Irrigate new land.
County-wide			67,062		Misc. stock and Irrigation res. W.P.A. application
CASCADE COUNTY:					
Dearborn-Crown Butte	88,000	43,000	1,998,182	22.71	Reservoir on Dearborn River and diversion from Sun River. New land, project being investigated. May revise plan.
CHOUTEAU COUNTY:					
Big Sandy Pumping	53,400	21,000	1,547,430	28.98	Pump from Missouri river for new and supplemental irrigation in valley.
Ft. Benton Pumping	2,000	500	20,490	10.25	Pump from Missouri river for new land near Fort Benton.
County-wide			33,192		Misc. small stock and irrigation on reservoir WPA application 9/27/37.
CUSTER COUNTY:					
Sadies Flat Pumping	18,600	6,200	198, 182	10.65	Pumping from Yellowstone R. for irrigation of new land midway between Miles City & Forsyth.
Lower Pumpkin Storage	6,814	9,500	223,636	32.82	Dam on Pumpkin Creek. Supplemental irrigation along creek valley.
County-wide			185,724		Misc. small stock & irrigation reservoirs. WPA application 10/11/37
DANIELS COUNTY:					
Richland Flood Control	111,000	7,971	363,253	33.02	Dam on W.Fork of Poplar River to irrigate new land below Richland
E. Fork Poplar River Storage	7,564	5,700	126,433	16.72	Dam on East Fork Poplar river to irrigate land near Scobey.

Project	Stge. A/F.	Acres	Total Cost	Cost A/F.	Remarks
County-wide			190,500		Misc. small stock and irrigation reservoirs. WPA application 11/3/37.
DAWSON COUNTY:					
County-wide			166,705		Misc.stock and irrigation reservoirs.WPA appl. 10/19/37.
DEER LODGE COUNTY: none					
FALLON COUNTY:					
Rake project,flood water	160	160	5,674	35.44	Diversion dam on Begner creek district.
27 stock water res.			59,821		Small reservoirs in county.
FERGUS COUNTY:					
Ross Fork Storage	6,700	8,000	216,363	32.29	Dam on Ross Fork.Irrigated land west of Lewistown.
Cottonwood Stge.	3,000	3,000	190,000	63.33	Dam on Cottonwood creek for supplemental irrigation near Lewistown.
County-wide			85,190		Misc. stock and irrig.reservoirs. WPA Appl.
FLATHEAD COUNTY:					
Talley Lake Stge.	22,000	10,000	342,279	15.55	Dam to raise lake for supplemental irrigation near Kalispell.
GALLATIN COUNTY:					
South Bench Pumping	15,000	7,500	279,998	18.67	Pump from Jefferson river and exchange for stored water from Willow creek reservoir for new land on South Bench.
GARFIELD COUNTY:					
Burgess Flood Irrig.		100	3,000		For flood irrigation.
78 stockwater reservoirs			93,867		Misc.projects scattered over county. WPA application, 7/20/36.
GLACIER COUNTY: none					
GOLDEN VALLEY COUNTY:					
County-wide			67,062		Ditches and dams over county. WPA appl.10/21/1936.
GRANITE COUNTY: None					

Project	Storage Acre Feet	Acres	Total Cost	Cost Acre Feet	
			$	$	
HILL COUNTY:					
Beaver Cr. Storage	3,100	3,300	189,091	61.00	Dam on Beaver creek for supplemental irrigation in valley near Havre.
County-wide			189,984		Miscellaneous stockwater and irrigation reservoir. WPA application, 10/25/37.
JEFFERSON COUNTY:					
Whitetail Storage	10,000	4,000	130,909	13.09	Dam on Whitetail creek to be completed for supplemental irrigation.
Jefferson R. Div.	7,500	11,000	75,000	10.00	Canal from Jefferson river for supplemental irrigation near Whitehall.
Boulder R. Storage	8,200	6,600	200,000	30.30	Dam; head of Boulder river for supplemental irrigation along Boulder river valley.
18-Mile Storage	800	800	76,842	96.06	Dam on Little Pipestone creek for supplemental irrigation along creek.
JUDITH BASIN COUNTY:					
Pig Eye Basin Stge.	10,652	7,000	430,909	40.45	Dam on Judith river for supplemental irrigation along upper Judith river valley.
County-wide			67,165		Miscellaneous stockwater and irrigation.WPA appl. 11/2/37.
LAKE COUNTY:					
Finley Point Stge.	800	500	87,787	109.73	Storage on Skidoo creek for irrigation and domestic use on Finley Point.
LEWIS & CLARK COUNTY:					
Nilan Storage	10,300	10,000	261,818	25.42	Nilan is a bench reservoir. Water from Smith and Ford creeks for supplemental irrigation, near Augusta.
LIBERTY COUNTY:	none.				
LINCOLN COUNTY:					
Twin Lakes Stge.		1,000	19,000		Dam to store in Twin Lakes and four miles of canals.
MADISON COUNTY:					
Ruby river, East Side Canal	20,000	11,650	214,545	10.73	Canal along east side Ruby valley. New and supplemental irrigation.

Project	A/F. Stge.	Acres	Total Cost	Cost A/F	Remarks
Madison Co., (cont'd)			$	$	
E. Madison Canal		20,000	200,000	10.00	Divert from Madison River for new and supplemental irrigation above Ennis.
S. Boulder Storage	1,800	5,837	70,500	39.20	Dam on S. Boulder creek for supplemental irrigation along valley.
Bell or Summit Lake	865	2,000	15,000	17.35	Additional storage for supplemental irrigation.
McCONE COUNTY:					
Ash Creek Stge.	420	1,000	22,005	52.39	Repair dam near Brockway.
Small Reservoirs			51,100		County-wide for irrigation and stockwater. WPA application, 3/10/'35.
MEAGHER COUNTY:					
Dorsey Storage	6,000	2,400	296,256	49.38	Bench reservoir water supply. 16-Mile Creek. Irrigate new land.
MINERAL COUNTY:	None				
MISSOULA COUNTY:					
Msla. Diversion	42,000	12,061	1,300,000	30.95	Dam, divert from Clark Fork river. New and supplemental irrigation above Missoula
Rattlesnake Stge.	642	1,000	44,019	68.57	Dam on Rattlesnake creek for supplemental irrigation above Missoula.
Big Flat Diversion		1,257	69,700	57.25	Divert from Bitterroot River. New irrigation at mouth of river.
Tower Lake Stge.	250		12,840		Small lakes at head of Rattlesnake creek. Supplemental irrigation along creek valley,
East Twin Lake	130		8;247		supplemental irrigation along creek valley.
Three small Lakes	150		3,000		" " " " "
MUSSELSHELL COUNTY:					
Newton Ditch	3,000	3,000	130,909	43.64	Direct diversion from Musselshell River near Roundup.
So.Willow Crk. Stge.	4,067	5,780	62,852	15.45	Two dams. Storage for supplemental irrigation on South Willow Creek.

Project	A/F Stge.	Acres	Total Cost	Cost A/F	Remarks
Musselshell Co., (cont'd):			$	$	
County-wide			185,724		Miscellaneous stockwater and irrigation reservoir. WPA application. 10/22/37.
PARK COUNTY:					
Mill Cr. Stge.	7,500	4,000	177,000	23.60	Dam on Mill Creek. Supplemental irrigation down the valley.
Shields River	30,000	25,400	1,145,454	38.18	Supplemental irrigation, Shields R. Valley.
PETROLEUM COUNTY:					
Flatwillow Stge.	10,000	10,000	367,273	36.73	Dam on Flatwillow creek. Supplemental irrigation along valley.
County-wide			34,627		Miscellaneous stockwater and irrigation. WPA application 12/4/37.
PHILLIPS COUNTY:	None				
PONDERA COUNTY:	None				
POWDER RIVER COUNTY:					
County-wide Res.			67,062		Miscellaneous reservoirs for stockwater and irrigation. WPA application 11/2/37.
Hagendon's Res.	40	80	924	23.10	Small dam on tributary of Pumpkin Creek.
POWELL COUNTY:					
Little Blackfoot-Cottonwood	4,200	3,000	214,678	56.11	Dam on Little Blackfoot. Divert through mountains for supplemental irrigation on Cottonwood creek near Deer Lodge.
PRAIRIE COUNTY:					
County-wide			11,993		Miscellaneous small stock and irrigation reservoirs. WPA application 1/8/38.
RAVALLI COUNTY:					
Bear Cr. Stge.	2,155	2,500	114,737	53.25	Dam on Bear Creek. Supplemental irrigation near Victor.
Blodgett Cr. Stge.	12,750	5,000	432,727	33.94	Dam on Blodgett " " "near Hamilton.

Project	A/F. Stge.	Acres	Total Cost	Cost A/F.	Remarks
Ravalli Co.,cont'd.			$	$	
Florence Stge.	2,614	6,500	121,818	46.60	Storage on 8 small lakes for supplemental irrigation near Florence.
County-wide			11,993		Miscellaneous stockwater and irrigation reservoirs. WPA application 7/24/37.
RICHLAND COUNTY:					
Savage Pumping	2,246	2,123	38,708	9.12	Pump from Yellowstone river for Irrigation.
County-wide			201,186		Miscellaneous stockwater and Irrigation.WPA.,'37.
ROOSEVELT COUNTY:					
Bainville Stge.	6,000	8,000	260,382	43.40	Two reservoirs for flood control and irrigation new land near Bainville.
Lower Big Muddy	1,580	1,579	32,727	20.73	Two dikes for flood irrigation near Culbertson.
County-wide			190,500		Miscellaneous stockwater and irrigation reservoirs. WPA, 1937.
ROSEBUD COUNTY:					
Rosebud R. Stge.	3,242	3,500	134,545	41.50	Dam on Rosebud river.Supplemental irrigation.
McGinnis Cr.Stge.	5,018	5,000	122,409	24.39	Dam on McGinnis creek.Supplemental irrigation.
County-wide			67,062		Miscellaneous stockwater and irrigation reservoirs. WPA application, 1937.
SANDERS COUNTY:					
SHERIDAN COUNTY:					
Upper Big Muddy Stge.	15,000	15,000	476,000	31.75	Dam on Big Muddy creek for irrigation of new land near Reserve.
County-wide			190,500	45.00	Dam for supplemental irrigation. Small tracts.
SILVER BOW COUNTY:					
Brown's Gulch and Hail Columbia		3,500	157,500	45.00	Dam for supplemental irrigation small tracts

Project	A/F. Stge	Acres	Total Cost	Cost A/F	Remarks
			$	$	
STILLWATER COUNTY:					
County-wide			30,443		Miscellaneous stockwater-irrigation reservoirs. WPA application, 1936.
Sioux Charlie Lake	22,966		1,794,656	78.14	Raise lake level for supplemental irrigation.
SWEET GRASS COUNTY:					
Sweet Grass Stge	15,000	12,000	412,727	27.52	Dam on Sweet Grass creek. Supplemental irrigation near Melville.
TETON COUNTY:					
Deep Cr. Stge.	23,000	7,250	585,000	25.27	
TOOLE COUNTY:	none.				
TREASURE COUNTY:					
N. Sanders Div.	13,500	5,400	52,727	39.06	Direct diversion from Yellowstone river. Repairs to present canal and dam.
BigHorn-Tullock Div.		1,800			Direct diversion from BigHorn river. Repair present canal and dam.
Sarpy Creek	600		18,685	31.14	Dam on Sarpy creek, supplemental irrigation in BigHorn and Treasure Counties.
County-wide			37,787		Miscellaneous stockwater-irrigation reservoirs. WPA application, 1936.
VALLEY COUNTY:					
County-wide			93,461		Miscellaneous stockwater-irrigation reservoirs. WPA application, 1937.
WHEATLAND COUNTY:	County-wide		67,062		Miscellaneous stockwater-irrigation Res. WPA, 1937
WIBAUX COUNTY:	County-wide		67,062		Miscellaneous stockwater-irrigation Res. WPA, 1937.
YELLOWSTONE COUNTY:	County-wide		43,018		Miscellaneous stockwater-irrigation Res. WPA, 1936.
TOTAL - - - -	$31,877,408				